

Public Utilities



Volume 58 No. 11

November 22, 1956

LOW-COST FINANCING OF HYDROELECTRIC PROJECTS

By Leland B. Yeager

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Operation of Surface Carriers Part II.

By David I. Mackie

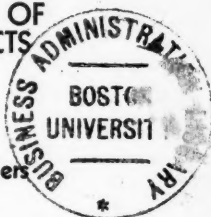
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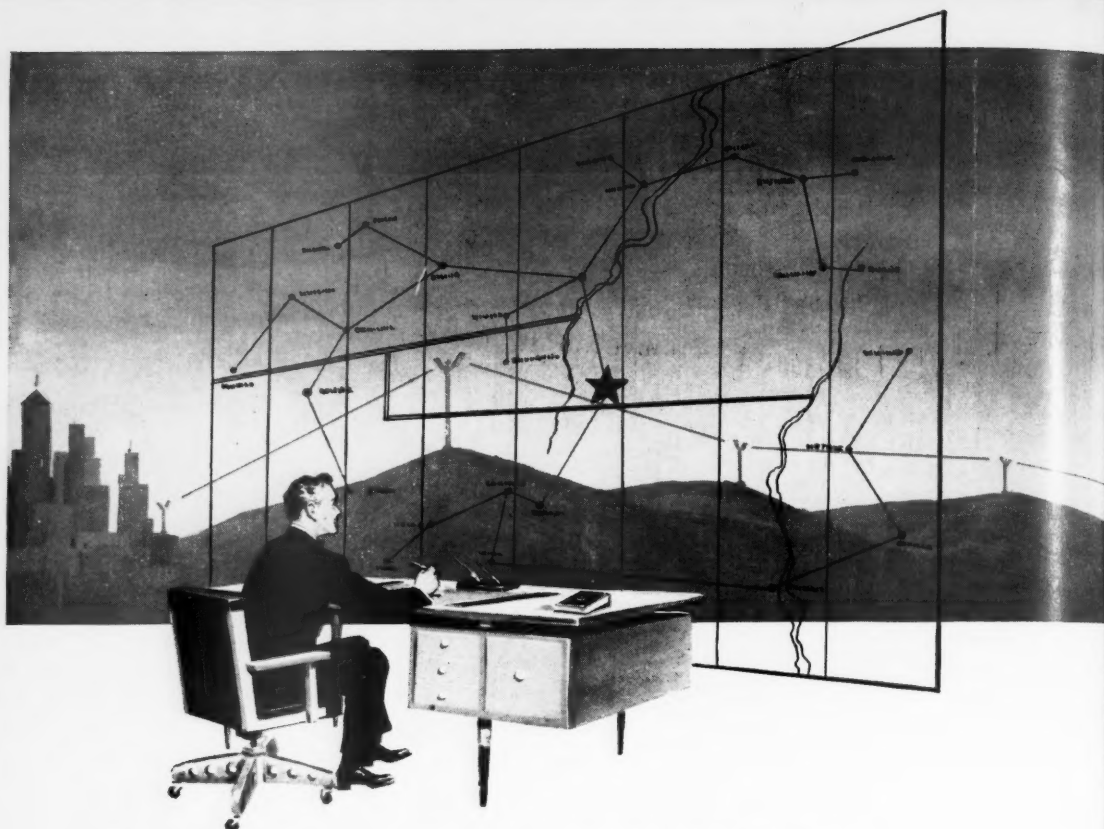
Public Relations of Utility Metering

By Joseph S. Rosapepe

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Utility Spokesmen View Accelerated Depreciation





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Public Utilities

FORTNIGHTLY

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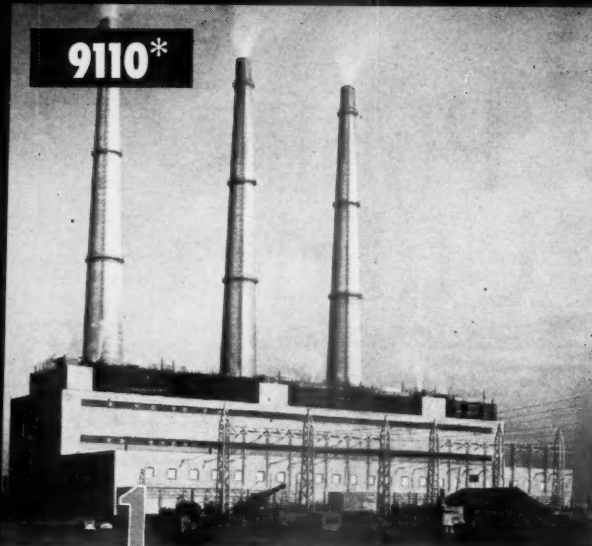
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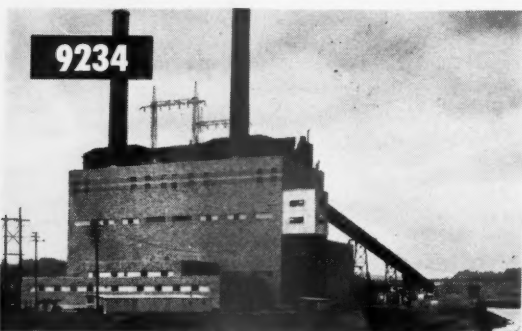
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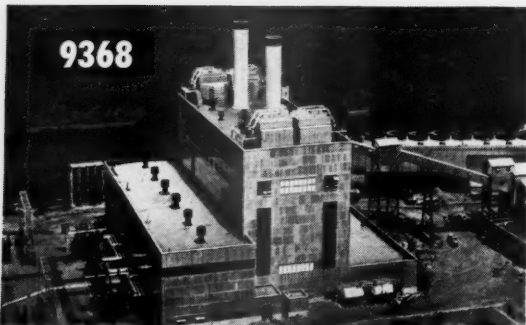
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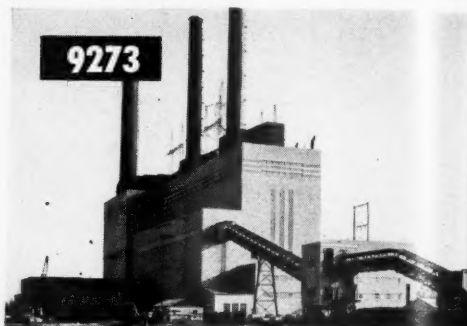


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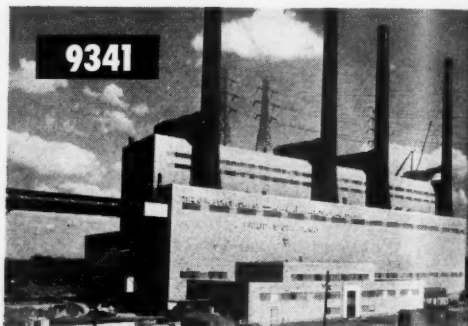


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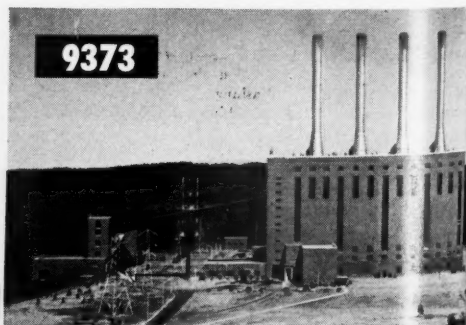


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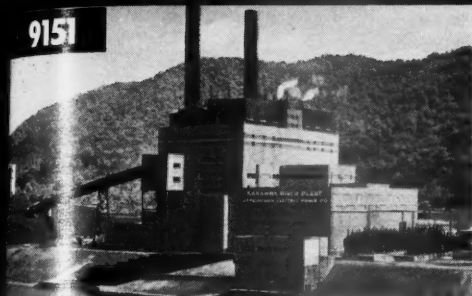
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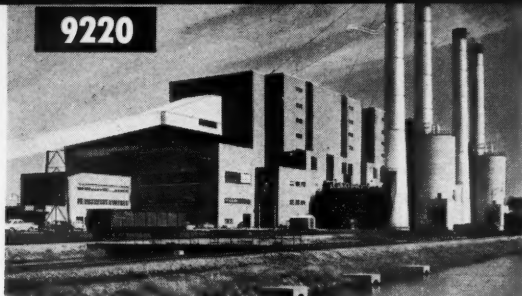
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4

These 10 Power Plants Tell WHY AMERICA'S ELECTRIC COSTS STAY LOW

Engineering Development and Research Pay Off in Increased Efficiency

The most efficient power plants in the United States in 1955, as reported by the Federal Power Commission, are led by the two largest investor-owned power plants in the world—Kyger Creek, with 9110 Btu per net kwhr, and Clifty Creek, with 9143.

These ten stations—and the many others like them throughout the country—exemplify the foresight and progressiveness of American public utility management. They have quickly put “on the line” major engineering advances in power generation.

FIVE YEARS AGO only two plants operated under 10,000 Btu per net kwhr. In 1955, there were 41. This progress has been gained by the united effort of electric companies and their primary suppliers to produce more electricity more efficiently, and at a continued low cost to the consumer.

TODAY'S TRIUMPHS in keeping power cheap are only a step on the way to greater achievement. Already there are plants in operation or being built which will have heat rates of 8500 Btu per net kwhr—and research is being intensified to gain even lower levels. At the same time, American utilities and their suppliers are steadily pushing the use of nuclear energy on a massive scale.

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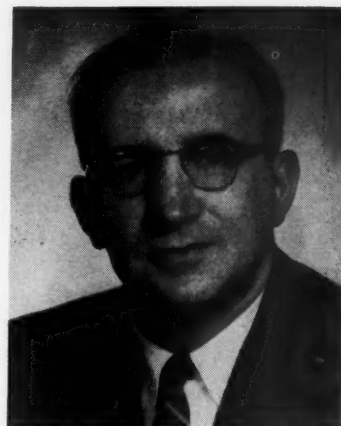
Pages with the Editors

THE outbreak of armed conflict in eastern Europe and the Near East, virtually on the eve of our national elections, should have a sobering effect on many of our politically minded citizens. Important as it was to get out the vote, and to vote for our choice, the fact that the world still turned and that most of its inhabitants were otherwise preoccupied, was certainly driven home to all major candidates as the campaign entered its closing hours.

It may well have been the very fact that we *were* preoccupied with our own affairs which inspired events which had such widespread repercussions among the family of nations. With the elections now over and partisan politics adjourned, for a while at least, it might be said that President Eisenhower proved his mettle in refusing to temporize, with respect to the nation's duty to honor its international obligations. His resulting victory at the polls vindicated a courageous course of action, which might have been diluted by political expediency in the case of a candidate who placed his election prospects ahead of the urgency of forthright national leadership.

THUS it is that elections and political campaigns have a way of turning up results entirely unforeseen during the periods when platforms were drafted and issues were being prepared for the hustings. In this respect, we might carry the same reasoning in reverse to our domestic political scene. The so-called "giveaway," or government power issue, has apparently been shriveled.

REMEMBER last spring and summer when the campaign orators kept pounding away on such matters as the defunct Dixon-Yates contract and the so-called Hell's Canyon giveaway, and other matters calculated to make a football of government policy respecting electric utilities? Where are these arguments today

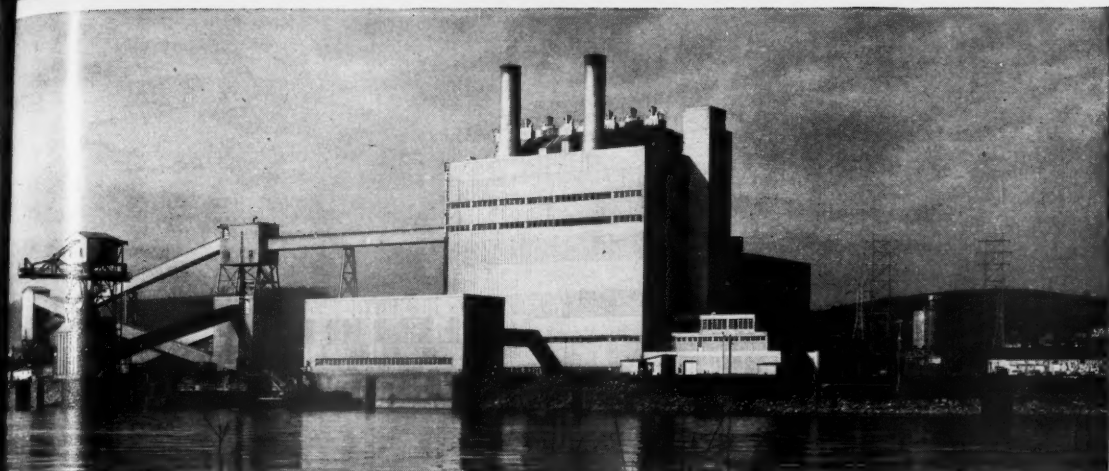


JOSEPH S. ROSAPEPE

and what further significance have they? Perhaps we have heard the last of them, in which case—good riddance.

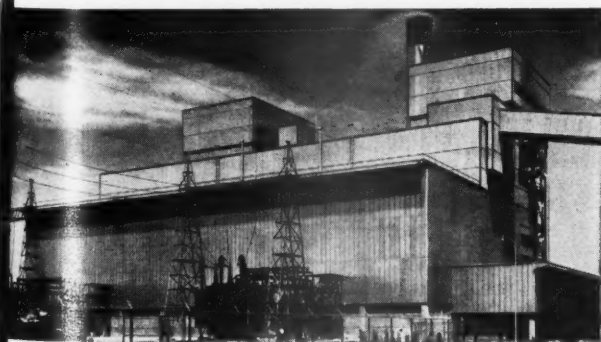
IF all the acrimonious debate over the so-called government power issue has been swept into the dustbin of history by the recent verdict of the American electorate, it will probably be a good thing. It will be a good thing, not because any great proportion of actual voters had any such result in mind. Indeed, the chances are that only an infinitesimal fraction of those voters knew or cared anything about the great "giveaway," about which so many politicians had so much to say and at such great length.

It will be a good thing because public utilities as such should never have been made an issue in the first place. Public utility industries have an obligation of public service which should place their membership in the private enterprise system of American industry beyond perennial political controversy. Where public utility operations deserve to be disciplined, or are found wanting, we have a tried and proven system of regulation to remedy these defects. Such controversy should not be used as a basis for making political medicine to manufacture votes.

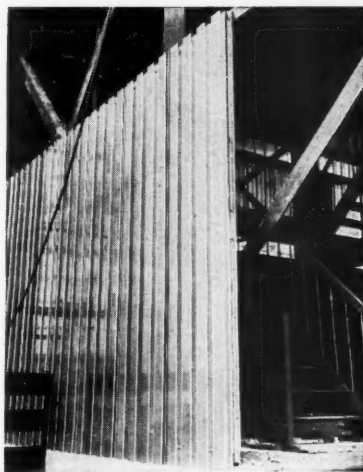


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PAGES WITH THE EDITORS (Continued)

BUT some of the politicians apparently felt that there were votes to be caught in the troubled waters of the government power controversy with the electric utility industries in past years. And so they made great preparations and many speeches. But the irony of fate caused booming guns of the Near East and many other important matters to drown out campaign oratory. By election day even the major candidates were paying little attention to this subject, which might well go down as the great forgotten issue of 1956. Public utilities are neither Democratic nor Republican. They owe an equal duty of public service to the entire population. It is to be hoped that they will now resume this traditional place in our American economy and not be dragged out every election year as a punching bag for vote-hungry politicians.

THE electric utilities in particular need friends and better understanding on both sides of the political aisle. And this may be a good time to start a rapprochement which will restore them to a nonpartisan status, which never should have been called into question, or put to any political test.

IN this issue we have a thoughtful article by a University of Maryland assistant professor of economics on the subject of low interest rates on federal power projects. He is PROFESSOR LELAND B. YEAGER. Educated at Oberlin (AB, '48) and Columbia (MA, '49; PhD, '52), he joined the Maryland University faculty in 1952 after previous teaching experience in Europe and at Texas A&M College. His main interests are monetary economics and international economics, but with some previous work on hydroelectric development. He is the author of numerous articles in economic journals.

* * * *

WE conclude in this issue (beginning on page 815) the 2-part series by DAVID I. MACKIE of New York, chairman of the Eastern Railroad Presidents Conference. This second instalment deals with the problems of subterfuge and evasion which have characterized many



DAVID I. MACKIE

operations and attempted operations of motor carriers in competition with railroads. The reactions of the Interstate Commerce Commission and other regulatory and advisory bodies are also noted in this complete and thoroughly documented account of the law and principles involved. Regulatory and other problems posed by operators of common, contract, and private carrier service over highways have had a notable impact on the national transportation economy.

* * * *

ALSO in this issue (beginning on page 832) is an article dealing with the public relations of utility metering—primarily water utility metering. The author is JOSEPH S. ROSAPEPE, director of public relations of the Case Institute of Technology in Cleveland, Ohio. His experience covers two decades in newspaper and public relations work in the United States and Europe. He started his journalistic career with the *Youngstown (Ohio) Vindicator* and later worked for the Associated Press in Rome and as editor of AP's World Service financial and business department in New York. During World War II he served with the U. S. Office of Information in Washington, London, England, and Lisbon, Portugal.

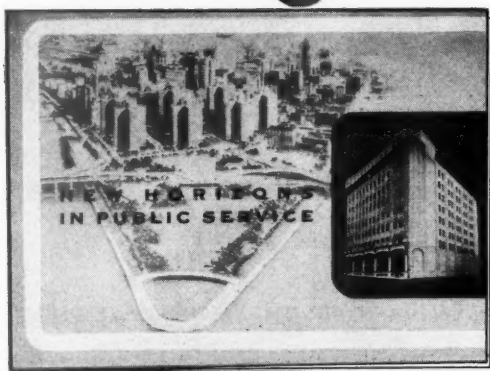
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(December 6, 1956, issue)



TRENDS IN PRODUCER RATE CONTROLS

Both the regulators and the regulated as well as gas consumer interests are puzzled over what happens now that the U. S. Supreme Court has refused to review the District of Columbia circuit court of appeals decision in the Panhandle Eastern Pipe Line Case. The over-all effect of the lower court's decision was to set aside an FPC rate increase for the Panhandle Eastern Pipe Line Company, which had been computed on the basis of fair field price of gas rather than the conventional cost-of-production formula which the FPC has used for rate making in other regulatory fields. Edward Falck, one-time director of the Office of War Utilities and now Washington consultant, has analyzed the difficult situation in which both the FPC and the natural gas producers find themselves, as a result of a number of complex problems.

PROPERTY TAX EQUALIZATION IN CALIFORNIA

Public utility companies, most of which operate in more than one community and many at a statewide level, are particularly vulnerable to so-called tax equalization. Periodically, steps are taken and laws are passed seeking to equalize tax assessment as between counties or political subdivisions of the same state. The California State Board of Equalization has been particularly active in this respect. Robert E. McDavid, member of the California board, which assesses tangible property of the major public utilities, has written this account of the difficulties involved and how the California board has endeavored to work out the problem.

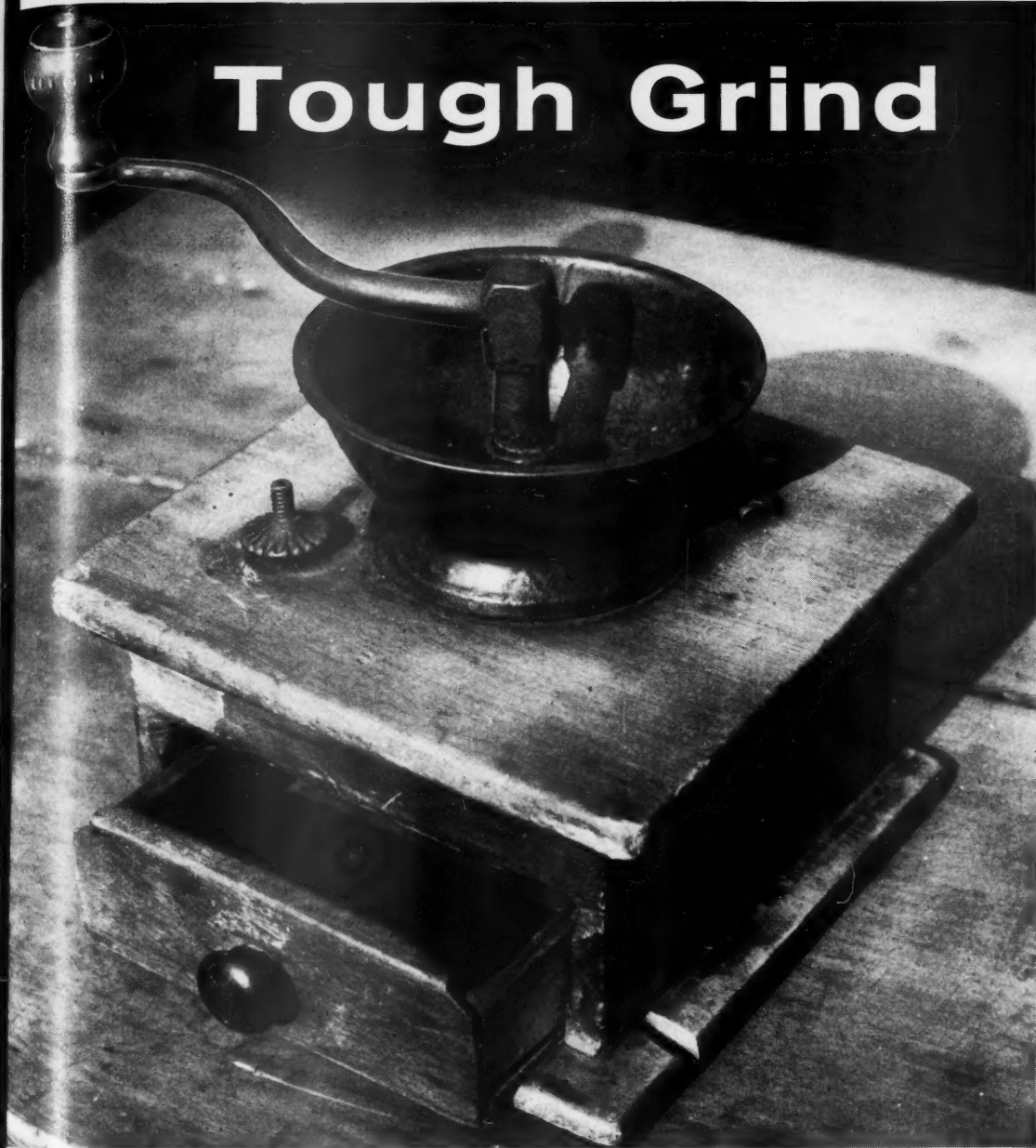
DEVELOPMENTS IN IRREGULAR AIR CARRIER OPERATIONS

We have been hearing a lot lately about the so-called "nonskeds" in the field of commercial aviation. During the past year some 49 irregular carriers have been authorized for the first time by the Civil Aeronautics Board to engage in regular scheduled operations. What has been the impact on the established regular air carriers? How does this innovation stack up against settled regulatory principles? Lawrence L. Stentzel, New York attorney specializing in air carrier regulation, gives us an account of developments in this increasingly active special field of regulation.



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The (San Francisco) Call-Bulletin.

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POPE PIUS XII

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EDITORIAL STATEMENT
The Wall Street Journal.

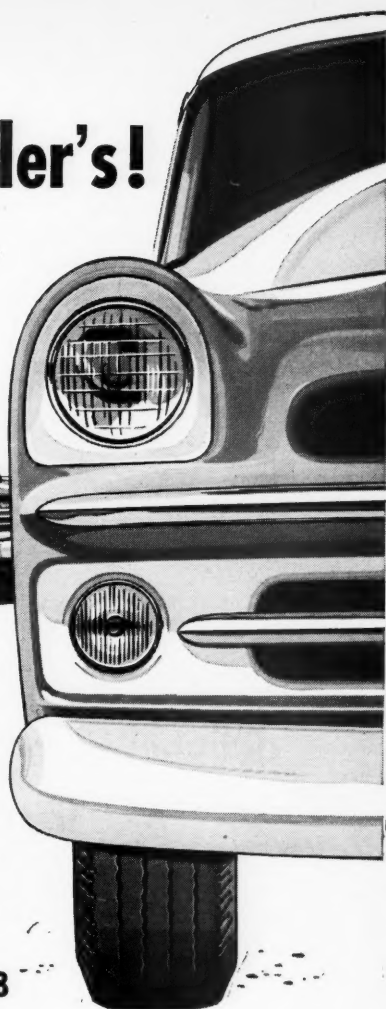
"Wherever the government intervenes in the economy, the intervention is automatically discriminatory and when long continued becomes self-perpetuating. The government intervened to help the farmer. And now Mr. Benson finds that there is nothing he can do—nothing that he can even cease doing—that does not adversely affect somebody. Let the government intervene to support farm prices, hold down rents, subsidize industry or give favoritism in freight rates; the government's action thereafter can no longer be neutral. It has laid claim to a wisdom it cannot fulfill with justice."

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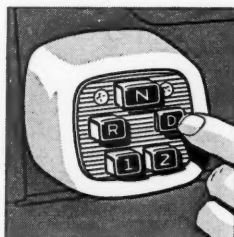
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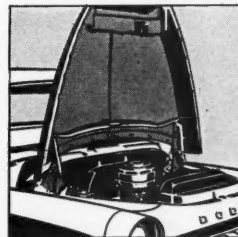
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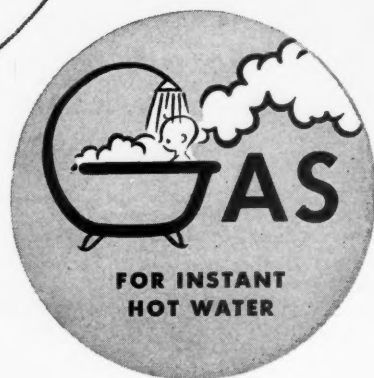


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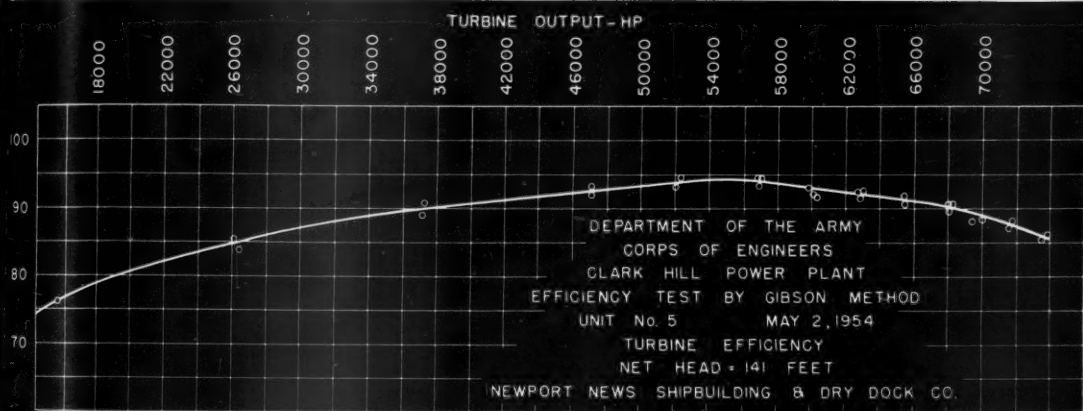
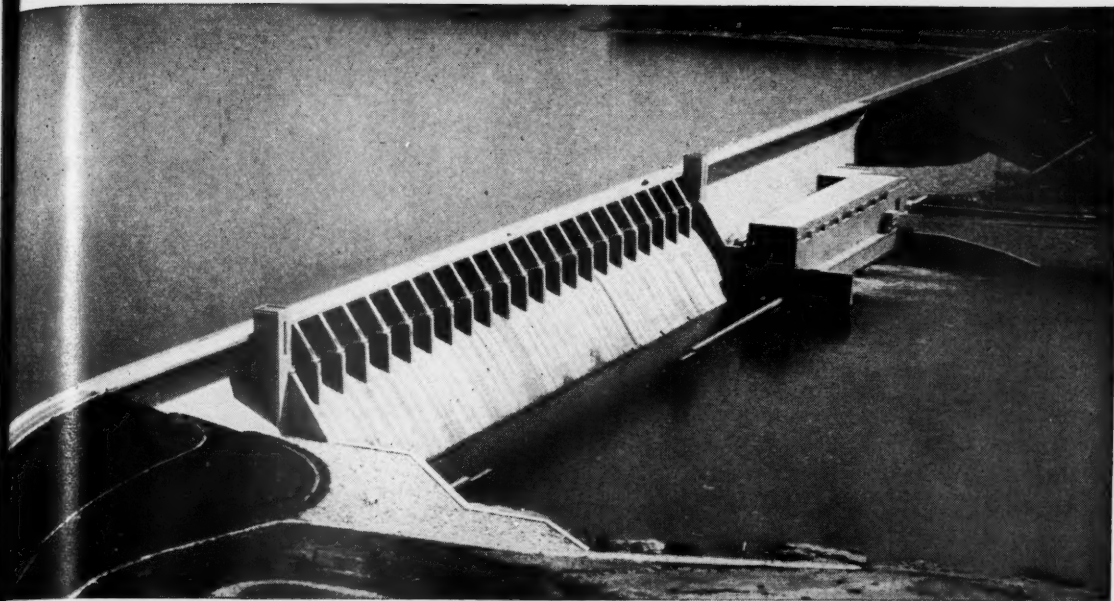


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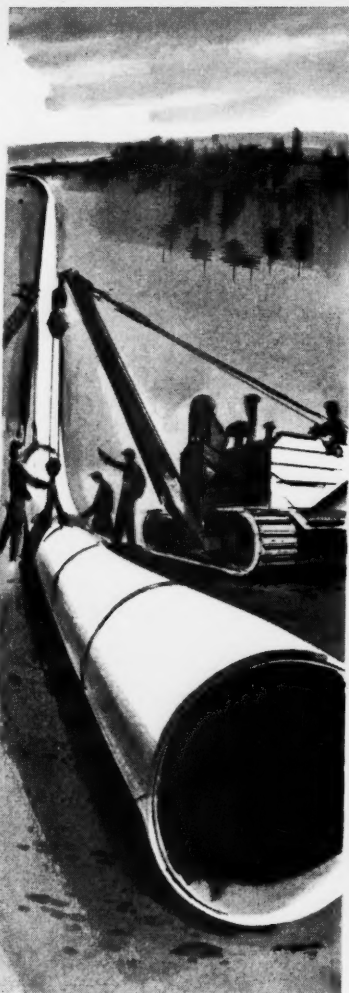
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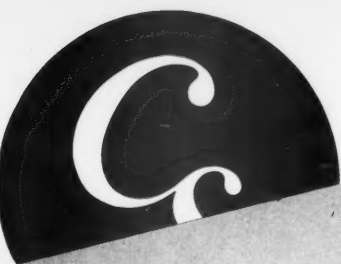
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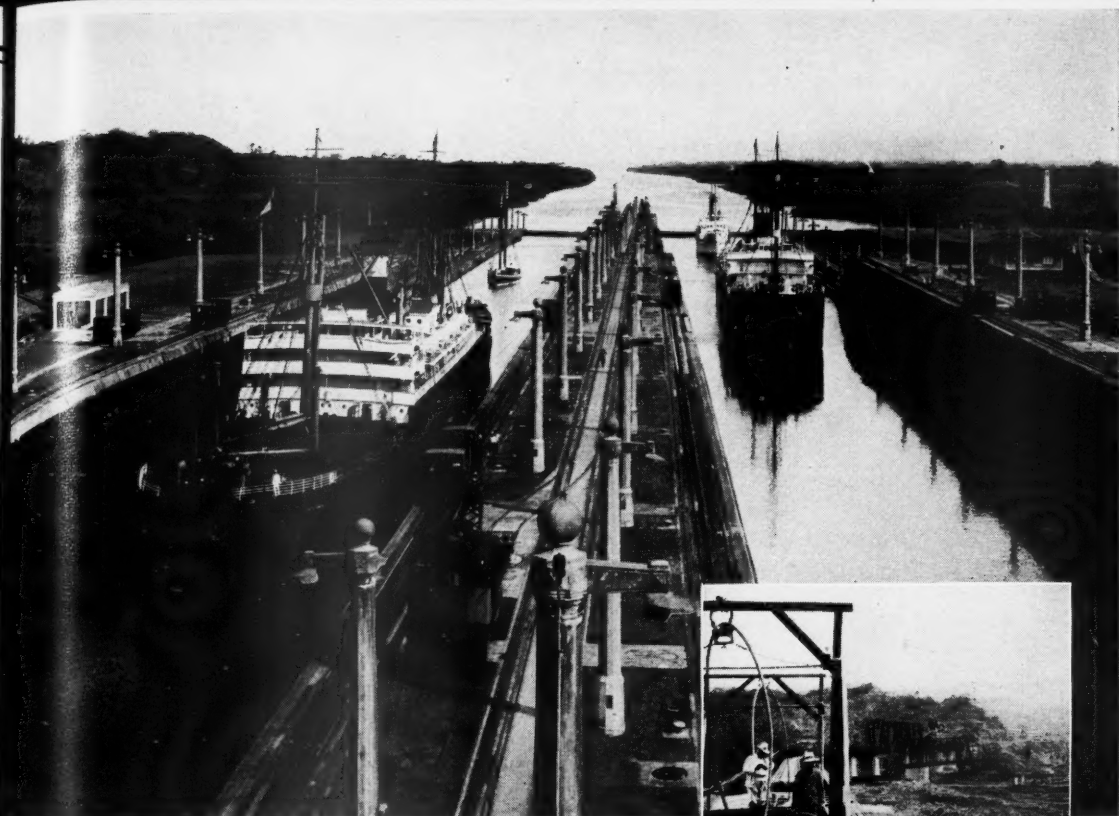
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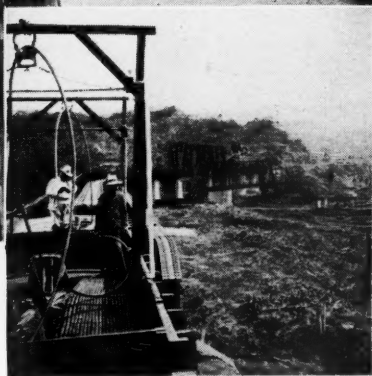


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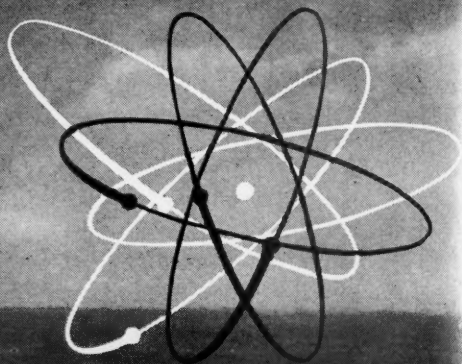
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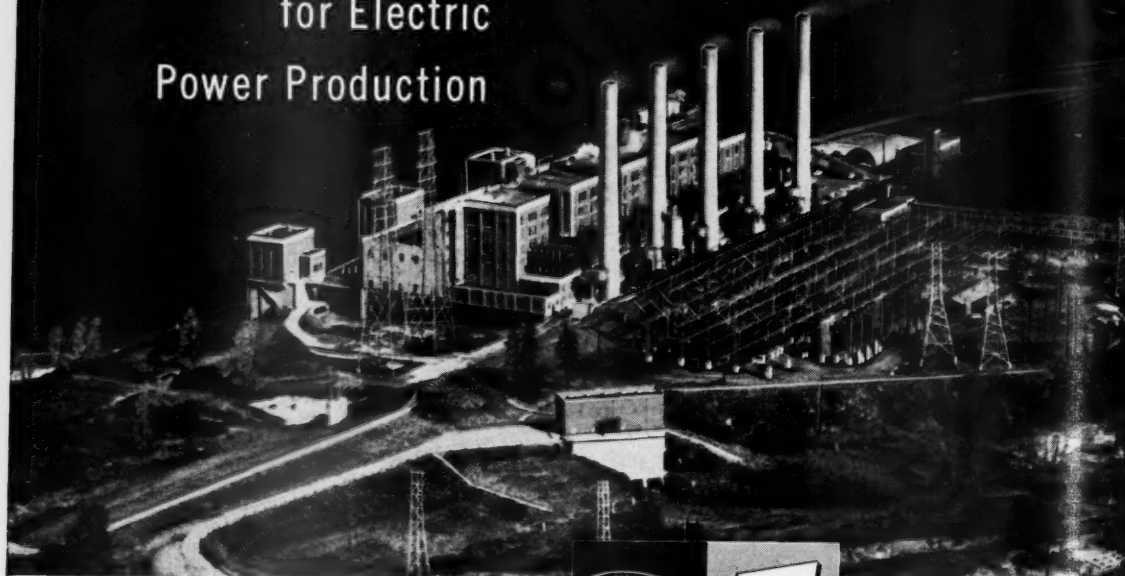


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NOVEMBER—DECEMBER



Thursday—22 <i>Edison Electric Institute, Commercial Cooking and Water Heating Committee, will hold meeting, Cleveland, Ohio. Dec. 13, 14. Advance notice.</i>	Friday—23 <i>Northeastern Weed Control Conference will be held, New York, N. Y. Jan. 10-12, 1957. Advance notice.</i>	Saturday—24 <i>Doble Engineering Company will hold annual conference of clients, Boston, Mass. Jan. 14-18, 1957. Advance notice.</i> 	Sunday—25 <i>American Society of Refrigerating Engineers begins semiannual meeting, Boston, Mass.</i>
Monday—26 <i>American Society of Mechanical Engineers begins national exposition of power and mechanical engineering, New York, N. Y.</i>	Tuesday—27 <i>Inland Empire Waterways ends 2-day annual convention, Yakima, Wash.</i>	Wednesday—28 <i>Edison Electric Institute, Accident Prevention Committee, ends 3-day meeting, Hartford, Conn.</i>	Thursday—29 <i>Great Lakes Conference of Railroad and Utilities Commissioners begins first annual convention, White Sulphur Springs, W. Va.</i>
Friday—30 <i>Third International Automation Exposition ends, New York, N. Y.</i>	DECEMBER Saturday—1 <i>American Water Works Association, Cuban Section, ends 3-day annual meeting, Havana, Cuba.</i>	Sunday—2 <i>Southern Gas Association will hold employee relations round-table conference, Dallas, Tex. Jan. 18, 1957. Advance notice.</i> 	Monday—3 <i>American Gas Association-Edison Electric Institute begin electronics seminar, Cincinnati, Ohio.</i>
Tuesday—4 <i>New England Gas Association, Operating Division, will hold meeting, Boston, Mass. Jan. 23, 1957. Advance notice.</i>	Wednesday—5 <i>Institute of Radio Engineers begins instrumentation conference, Atlanta, Ga.</i>	Thursday—6 <i>Interstate Oil Compact Commission begins annual meeting, Miami Beach, Fla.</i>	Friday—7 <i>Edison Electric Institute, Street Lighting Committee, ends 2-day meeting, Dayton, Ohio.</i>



Photo by Harold M. Lambert

*Now the Harvest Is O'er . . .
Thanksgiving Comes to Mind*

Public Utilities

FORTNIGHTLY

VOL. 58, No. II



NOVEMBER 22, 1956

Low-cost Financing of Hydroelectric Projects

Federal financing of power projects at low interest rates subsidizes the favored consumers of electricity. Monetary economics shows how inflation makes the general public pay for this subsidy.

By LELAND B. YEAGER*

A LEADING issue in discussions about hydroelectric power policy is the relative costs of government and private financing. The low interest rate on government borrowing has great theoretical as well as practical importance. The interest rate has large leverage in determining the cost of power at the dam because the capital investment and the interest on it are large compared with op-

erating and maintenance costs.¹ (After all, hydroelectric plants are durable and do not burn fuel.)

If the saving in interest justifies federal financing of hydroelectric projects,

¹ The executive secretary of the Northwest Public Power Association, in a speech reprinted in the *Congressional Record*, Senate, March 30, 1955, p. 3448, maintained that a rise of one percentage point in the interest rate would raise the cost of power by at least 13 per cent, and more on some projects. Senator Neuberger has used similar estimates. How accurate such figures are is beside the point; people *think* that the interest rate is crucial, which makes it worth while to look at the economic principles involved.

*Assistant professor of economics, University of Maryland. For additional personal note, see "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

it would seem to justify federal financing of all sorts of undertakings with capital costs amounting to a big slice of total cost. Intuitively we feel that there is something wrong with this conclusion. But what? Or is our intuition wrong?

Does Anybody Lose What Consumers Gain?

LET us suppose that federal financing does provide electricity at rates well below what privately financed utilities would have to charge. For the sake of argument, let us even suppose that cheap electricity spurs economic development of the region where it is available. Undoubtedly, then, power users benefit, as may the inhabitants of the region in general.

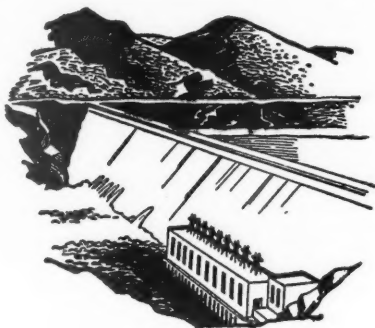
Just where does the benefit come from? This is one of the few key questions in the whole discussion of public power. Does the government have some magic way of benefiting power consumers at nobody's expense?

Perhaps low-cost financing somehow economizes on labor or materials or other real resources used in building and operating hydroelectric plants. But this idea is fanciful; the interest rate does not concern the physical quantities of input and output or the physical efficiency of production.

Low-cost financing in effect provides consumers of federal electricity with cheap capital, since capital goes into producing cheap electricity for them. Does the government make capital cheap by making it more abundant? Or does it simply divert capital from other and perhaps more urgent uses? To answer these questions, we must see what capital is—what interest is basically the price of. Ac-

cording to some definitions, capital is capital goods—dams, generators, and transmission lines, for example. According to other—perhaps more profound—definitions, capital is productive power in general that savers, by not spending their entire incomes on consumption, free from producing consumer goods for producing capital goods instead. In any case, capital is not just a matter of dollars: Simply creating new dollars cannot make people willing to consume less of their incomes and save more to permit investment in capital goods. (It is true that inflating an economy out of depression can provide more voluntary saving than before, but we are not concerned here with the peculiar economics of depression.) Saving, not the printing press or its sophisticated equivalents, is what provides capital.

IT follows that if federal financing benefits power consumers by making capital more abundant, it must do so by somehow stimulating saving. But the mere offer of additional government bonds on the market is unlikely to do that. The individual saver already had a wide choice of government and private securities to invest in; he does not care about the total number of bonds the government is trying to sell. The interest rate paid on government bonds is hardly a special incentive to save, especially when its very lowness is what makes federal financing of hydroelectric projects seem attractive. Government borrowing could spur voluntary saving only by bidding up interest rates generally. Even this effect would be slight, since the interest rate does not strongly influence people's decisions about consumption and saving. In-



Cost of Financing Hydro

“A LEADING issue in discussions about hydroelectric power policy is the relative costs of government and private financing. The low interest rate on government borrowing has great theoretical as well as practical importance. The interest rate has large leverage in determining the cost of power at the dam because the capital investment and the interest on it are large compared with operating and maintenance costs. . . . If the saving in interest justifies federal financing of hydroelectric projects, it would seem to justify federal financing of all sorts of undertakings with capital costs amounting to a big slice of total cost. Intuitively we feel that there is something wrong with this conclusion. But what?”

tensified demand for loans would make borrowers in general pay higher interest rates.

Who Loses?

IF government financing does not cause special physical efficiency in power production and does not provide capital through additional voluntary saving, then the benefits of cheap power must be at somebody's expense. But whose?

Perhaps the losers are the owners of private electric companies. But surely this cannot be the main answer. We are talking about low interest rates, not sim-

ply about a squeeze on profits. The interest costs that a private utility includes in the price of its power are not simple profit; the company in turn has to pay the interest to get the capital. (Even the dividends on equity capital are largely interest in disguise.)

Is cheap federal power then simply subsidized by savers, who must invest in government bonds at low interest rates rather than in private utility bonds at higher interest rates? No. An individual saver does not have to buy low-yield government bonds if he does not want to; he can always find plenty of other bonds on

PUBLIC UTILITIES FORTNIGHTLY

the market, including the bonds of private utilities. If he buys a government bond yielding $2\frac{1}{2}$ per cent rather than a utility bond yielding $3\frac{1}{2}$ per cent, he must think that the government bond has certain advantages making up for the lower yield. If he and other investors did not think so, they would bid for private bonds and shun government bonds until both types of bond yielded the same interest expressed as a percentage of the market price.

In fact, this does not happen, proving that buyers of government bonds do see advantages in them that fully make up for the lower yield. So bond buyers (as such) are not the people we are looking for—the people who lose what consumers of cheap federal electricity gain.

THE key to the whole riddle lies in the advantages of government bonds that make up for the low interest rate. These advantages are the exceptionally high degrees of safety and ready marketability that government bonds possess. The government can borrow at lower interest rates than private companies because its bonds come closer than theirs to possessing certain qualities of actual money.

People and businesses need to keep on hand various amounts of money (including bank accounts) to finance their ordinary transactions, since their receipts and expenditures do not dovetail perfectly in time and amount. They also keep money on hand or in the bank as a precaution against emergencies, as a means of seizing unforeseen opportunities, as an investment while waiting for things they want to buy to drop in price, as a source of maneuverability in general, and as a

symbol of financial respectability. Now, a holding of safe and readily marketable bonds can partly take the place of actual money in providing maneuverability and similar services. The safer and more readily marketable the bonds are, the better can they substitute for reserves of actual money. An investor holding a given amount of government bonds can safely hold a smaller noninterest-paying cash balance of actual money (and so can be content with a lower interest rate on the bonds) than if he held the same amount of private bonds. For example, if an insurance company finances a hydroelectric project by buying a given amount of government bonds, it is on this count in a more liquid position and less in need of a sizable cash balance than if it had lent the same amount to a private utility company.

FINANCING a project by selling government bonds thus means that the bond buyers will have a smaller demand for actual money to hold, at any given price level, than financing by the sale of less moneylike—less liquid—private securities. Consequently, the *total* demand for money to hold will be smaller than if the government bonds had not been issued. Now, the demand for money to hold, together with the money supply, determines the value, or buying power, of money. The same principle of supply and demand governs the value of money as governs the value of any ordinary commodity. Anything that reduces the demand or increases the supply tends to lower the value.

Now, as already explained, an increasing abundance of government bonds does tend to reduce the demand for money because government bonds can partially

LOW-COST FINANCING OF HYDROELECTRIC PROJECTS

substitute for cash balances. In short, financing hydroelectric projects by issuing government bonds has an inflationary effect on the relation between the supply of and demand for cash balances. The principle is simple: The more abundant are the substitutes for some thing, the less is the scarcity value of the thing itself. The effect is similar to, though weaker than, the inflationary effect of issuing new money. In fact, economists often describe government bonds as "near-moneys."²

IF the government finances hydroelectric projects by selling bonds to the banks, the inflationary effect is stronger than what has already been described, since within limits the banking system is able to create the checking-account money that it lends. The effect is worst of all if the Federal Reserve banks are directly or indirectly led to increase their holdings of government securities, since in so doing they multiply the money-creating power of the ordinary banks.

People who doubt all the above reasoning should ask themselves: If it is so important to finance power projects at low interest rates, why should not projects be financed by the issue and continual re-funding of 91-day Treasury bills? Or—still better—why not finance power projects by issuing interest-free actual money?

At last we have found the people who lose what the beneficiaries of cheap federal financing gain. They are all people who find price inflation whittling down

the buying power of their savings and incomes. (Some economists speak of "forced saving," in the sense that people whose incomes and savings have lost buying power are *forced* to cut back their consumption of goods and services.)

Some Objections Answered

A POSSIBLE objection is that no such price inflation need occur. Growing population, productivity, and business activity tend to raise the total demand for cash balances; this demand for money must be met or offset somehow to ward off actual deflation. True; but the necessary long-run monetary expansion could be done in a way that would benefit all citizens and not just favored consumers of electricity. Besides, low-cost financing of power projects could hardly contribute just the right amount of expansionary effect, especially as long as this effect was not even understood.

Another possible objection is that any inflationary effect of low-cost finance for a hydroelectric project would be too slight to worry about. This is probably true in regard to a single project. The harm would be spread over too many people to be felt. But if the cheap-finance idea were *generalized*, its effects would surely be felt, if not understood. Cheap finance cannot give something to somebody without taking anything from anybody.

Still another objection to our reasoning is that the additional output of goods and services made possible by new hydroelectric projects would match and offset any inflationary effect of cheap finance. Public power people wax lyrical about the industries, jobs, and agricultural expansion that cheap power will conjure up.

² The similarity between issuing highly liquid securities and issuing money has been noted by Abba P. Lerner, *The Economics of Control* (New York: Macmillan, 1947), pp. 344-45, and Don Patinkin, *Money, Interest, and Prices* (Evanston: Row, Peterson, c1956), pp. 170-71. The idea is implicit, at least, in Henry C. Simons, *Economic Policy for a Free Society* (University of Chicago Press, 1948), especially chapters VIII, IX, X, and XIII.

PUBLIC UTILITIES FORTNIGHTLY

EVEN assuming that cheap electricity can so greatly promote regional economic development, however, the idea is wrong. If money or "near-moneys" are created to finance a certain act of spending, the mere worthiness of the spending cannot blot out the inflationary effect. Except during general or localized depression and unemployment, labor and resources bid into particular productive uses must necessarily be bid out of other productive uses. Labor and resources are scarce in relation to limitless human needs and wants; this is *the* fundamental fact of economics.

There are all kinds of worth-while ways to use productive resources; the question is which are the most urgent. To favor particular types of production—say electricity and the industries consuming electricity in a particular region—is to trench on production of other types or in other regions. Cheap electricity is nice to have, but so are lots of other things; and even the United States is not rich enough to fully satisfy everybody's wants for everything. Choices have to be made; that is what economics is all about. Pouring cheaply borrowed dollars into the bidding for scarce labor

and resources cannot (except in so far as it fights depression and unemployment) increase a country's total production; the effect remains inflationary.

Conclusion

WHEN low-cost government financing artificially fosters hydroelectric and perhaps other developments in a particular region, the government is in effect subsidizing that region and diverting production from elsewhere. The subsidy has to be paid for somehow. It is paid for by a levy on all people who find their real incomes and savings eroded by price inflation (or who lose out because the government forgoes nondiscriminatory ways of providing monetary expansion to accompany general economic growth). This levy is hidden; few people understand the inflationary effects of low interest financing. But the levy is none the less real for being hidden. The government can provide artificially cheap electricity to some people only at the expense of others. To give everybody the supposed benefits of cheaply financed electricity would be absurd; we cannot all become prosperous by paying through inflation for subsidies to each other.

"So long as the government kept its frightened hold on atomic energy it was perforce the province of a few companies that the government contracted with for special services. Now that the field has been opened up to some extent, the only thing that is really surprising is the speed with which it is being crowded with eager competitors.

"You don't hear much any more about the dangers of too little competition in atomic energy. But, such is irony, we would not be surprised to hear complaints soon that the track is too fast and that the government ought to do something to protect the entrants from an overcrowded field."

—EDITORIAL STATEMENT,
The Wall Street Journal.



Operation of Surface Carriers

Part II.

This second part of a 2-part series deals with the problems of subterfuge and evasion which have characterized many operations and attempted operations of motor carriers in competition with railroads. The reactions of the Interstate Commerce Commission and other regulatory and advisory bodies are noted.

By DAVID I. MACKIE*

IN its report dated April, 1955, the Presidential Advisory Committee on Transport Policy and Organization made recommendations with respect to the problems growing out of the great expansion of pseudo-private carriage.⁷⁵ The recommendations contained in that report were the basis of proposed implementing legislation introduced in the first session of the 84th Congress.⁷⁶ New definitions of "common," "contract," and "private" carriers by motor vehicle were contained in the proposed legislation.⁷⁷

It seems clear that the indicated objectives of the Cabinet Committee would not

be achieved by adoption of the new definition of "private carrier" proposed in HR 6141. That a more precise definition of the term "private carrier" will not alone cure the evils of "pseudo-private" carriage is apparent immediately it is recalled why the term "private carrier of property by motor vehicle" is defined in the act. That term is defined for the purpose of specifying another group of carriers which is subject to safety regulation. Economic regulation of a carrier is in no way dependent upon its falling either within or without the private carrier definition. That status is dependent upon falling within or without the definition of common or contract carrier. So the more re-

*Chairman, Eastern Railroad Presidents Conference. For additional note, see also "Pages with the Editors."

PUBLIC UTILITIES FORTNIGHTLY

strictive the scope of the private carrier definition, standing alone, the smaller the group of carriers made subject to safety regulation—without effect on what carriers are subject to economic regulation. *Their* status for *that* purpose will continue to depend upon their inclusion within the definition of either “common” or “contract” carrier. Conversely, the broader the definition of private carrier, standing alone, the larger the group subject to safety regulation—again without effect on the incidence of economic regulation. The commission recognized this defect in the proposed legislation.⁷⁸ So did some witnesses at the hearings.⁷⁹

THE proposal contained in HR 6141 to delete from the definition of private carrier the phrase “when such transportation is for the purpose of sale, lease, rent, or bailment, or in furtherance of any commercial enterprise” would seem to render subject to safety regulation the individual citizen transporting interstate by motor vehicle his brief case or luggage, as well as the sportsman transporting his fishing rod.

In lieu of the deleted phrase, HR 6141 added a new proviso reading: “Provided, That such ownership, lease, or bailment was not undertaken for the purpose of such transportation.” The suggested addition of a “purpose” test, injecting elements exceedingly difficult of proof, would appear to add little but more uncertainty.

The Department of Commerce, which had supported the bill in the form in which it was introduced, ultimately conceded the desirability of retaining in the definition of private carrier language limiting its application to a “commercial operation.”⁸⁰

The commission disapproved the sug-

gested amended definitions of common and private carrier by motor vehicle. Instead, at pages 38 and 49 of the Appendix⁸¹ it suggested the addition to the act of a new subsection 203(c),⁸² the last two paragraphs being by way of substitution for the proposed new definition of private carrier by motor vehicle. The language of those last two paragraphs seems vague, indefinite, and incapable of exact application. Additionally it appears to involve the intricate and controversial “trip lease” problem to be touched upon hereinafter.

The commission’s explanation of this recommendation is set forth in the margin.⁸³

THE first paragraph of the suggested new § 203(c) seems inadequate to the objective sought in that it fails to deal with pseudo-private carriage. The phrase “engage in transportation for compensation” is clearly inadequate for that purpose.

What appears needed is a provision to the effect that no one may transport property by motor vehicle in interstate commerce for compensation *or in furtherance of any commercial enterprise* unless: (1) he is duly certificated so to do as a common carrier; or (2) he is duly permitted so to do as a contract carrier; or (3) the carriage falls within the definition of “private carrier of property by motor vehicle” which must be more restrictive than heretofore. An appropriate grandfather clause would undoubtedly be required.

Under such a provision all *commercial* interstate carriage of property by motor vehicle would be subject to *control* as to its lawfulness. Pseudo-private carriage would then be subject to sanction not

OPERATION OF SURFACE CARRIERS

heretofore available. Coupled with this suggestion a new definition of private carriage is requisite.

To accomplish the foregoing, it is suggested that the first paragraph of the commission's proposed new § 203(c) be expanded to read as follows:

Section 203(c). Except as provided in § 202(c), § 203(b), in the exception in § 203(a) (14), and in the second proviso of § 206(a) (1), no person shall engage in any transportation for compensation, by motor vehicle, in interstate or foreign commerce, on any public highway or within any reservation under the exclusive jurisdiction of the United States, unless there is in force with respect to such person a certificate or a permit issued by the commission authorizing such transportation [..], *nor shall any person in any other case transport by motor vehicle on any public highway, or within any reservation under the exclusive jurisdiction of the United States, property in furtherance of any commercial enterprise, unless such transportation shall be that of a "private carrier of property by motor vehicle," as that term is herein defined.*⁸⁴

THE legislative committee of the commission in 1952, in connection with its consideration of S 2362 (82nd Congress, 2d Session) suggested a new definition of private carrier,⁸⁵ reading as follows:

The term "private carrier of property by motor vehicle" means any person not included in the term "common carrier by motor vehicle" or "contract carrier by motor vehicle" who or which operates as a motor carrier in interstate or foreign commerce *solely within the scope of the primary business of such private carrier of property by motor vehicle.* (Italics supplied.)

The suggestion has the merit of preserving the "primary business" test and requiring that carriage, to fall within the definition, be "solely within the scope" of such primary business.

But it seems clear that even more is needed. The term "ordinary and necessary" as applied to the deductibility under § 162 of the Internal Revenue Code⁸⁶ of expenses paid or incurred in carrying on any trade or business has, through years of administrative and judicial interpretation, achieved clear meaning.⁸⁷ It is submitted that to transplant that term to the



“ECONOMIC regulation of a carrier is in no way dependent upon its falling either within or without the private carrier definition. THAT status is dependent upon falling within or without the definition of common or contract carrier. So the more restrictive the scope of the private carrier definition, standing alone, the smaller the group of carriers made subject to safety regulation—without effect on what carriers are subject to economic regulation. THEIR status for THAT purpose will continue to depend upon their inclusion within the definition of either 'common' or 'contract' carrier.”

PUBLIC UTILITIES FORTNIGHTLY

sought-after definition might be helpful.

The following is accordingly suggested:

(17) The term "private carrier of property by motor vehicle" means any person not included in the terms "common carrier by motor vehicle" or "contract carrier by motor vehicle," who or which transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee, when such transportation is [for the purpose of sale, lease, rent, or bailment, or in furtherance of any commercial enterprise] *an ordinary and necessary incident and solely within the scope and in furtherance of a primary business enterprise of such person, other than the furnishing of transportation for compensation.*⁸⁸

THE limitation at the end of the suggested definition "other than the furnishing of transportation for compensation" appears to be exceedingly important. Division 5 of the commission recognized the importance of this limitation in 1943, but the thought seems to have been lost in the welter of material that has been written in the interim. In that year Division 5, in the course of its opinion in *Woitishek*⁸⁹ said:

... it is apparent that a private carrier within the meaning of § 203(a) (17) is one who transports... property of which he is the owner, lessee, or bailee when such transportation is for the purpose of sale, lease, rent, or bailment, by the transporter or in furtherance of any commercial enterprise of the transporter other than transportation for compensation.

It is submitted that were a new § 203(c)

as herein suggested added to the act, and were the definition of private carrier amended along the lines hereinabove suggested, many of the commission's difficulties in administering the act would be lessened.

Likewise, it seems doubtful that a court, with that language before it, would hold that the facts in *Woodall*⁹⁰ sustain a holding of private carriage; or, conversely, that the transportation service performed in *Butkus*⁹¹ was other than "an ordinary and necessary incident and solely within the scope and in furtherance of a primary business enterprise of" Butkus "other than the furnishing of transportation for compensation."

Contract Carriage

UPON enactment of the Motor Carrier Act, 1935,⁹² the commission was confronted with many applications for permits to engage in the business of a contract carrier by motor vehicle under the grandfather clause.⁹³ In all contract carrier permit cases preceding enactment of the Transportation Act of 1940,⁹⁴ the commission applied a definition of contract carrier by motor vehicle which was keyed to transportation "under *special and individual contracts or agreements*." (Emphasis supplied.)⁹⁵ It will be recalled that the words "special and" were deleted in the 1940 amendment and that the conferees indicated no change of legislative intent in the deletion.⁹⁶ Both before and after the 1940 amendment, the commission interpreted the definition as "requiring some form of 'special and individual' service different from ordinary transportation service, under bilateral contracts covering service over a period of time."⁹⁷

The earliest expression of this "special-

Protecting Lawful Carriers

“WHAT appears needed is a provision to the effect that no one may transport property by motor vehicle in interstate commerce for compensation OR IN FURTHERANCE OF ANY COMMERCIAL ENTERPRISE unless: (1) he is duly certificated so to do as a common carrier; or (2) he is duly permitted so to do as a contract carrier; or (3) the carriage falls within the definition of ‘private carrier of property by motor vehicle’ which must be more restrictive than heretofore. An appropriate grandfather clause would undoubtedly be required. Under such a provision all COMMERCIAL interstate carriage of property by motor vehicle would be subject to CONTROL as to its lawfulness. Pseudo-private carriage would then be subject to sanction not heretofore available.”



ization” test appears to have been in a concurring opinion of the late Commissioner Eastman in *Keystone*,⁹⁸ wherein he reached the conclusion that the legitimate purpose of contract carriage should be “to furnish a specialized and individual service which is required by the peculiar needs of a particular shipper and which a common carrier, because of the character of its obligations to the general public, could not well undertake to supply.”⁹⁹

That concept was applied in *Pregler*¹⁰⁰ wherein the test was said to be “a special and individual service which is required by the peculiar needs of a particular shipper.”¹⁰¹ *Craig*¹⁰² is generally regarded as the full expression of the specialization test, spelled out in this manner:

The specialization which we have in mind may consist in the rendition of other than the usual physical services for the purpose of supplying the peculiar needs of a particular shipper, such, for example, as the furnishing of equipment especially designed to carry a particular type of commodity, the training of employees in the proper handling of particular commodities, or in the supplying of related nontransportation services such as the assembling, placing, or servicing of machinery. Or it may consist of nothing more than the devotion of all of a carrier’s efforts to the service of a particular shipper, or, at most, a very limited number of shippers, under a continuing arrange-

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ment which makes the carrier virtually a part of the shipper's organization.¹⁰³

ANOTHER leading case in which the specialization test was applied was *Midwest Transfer Company*.¹⁰⁴ In that case, in order to determine whether there was a general holding out to the public, the specialization test was applied in terms of number of contracts in effect or number of shippers served.¹⁰⁵

In *Refrigerated Transport Company*,¹⁰⁶ the commission, in noting the difficulty frequently encountered in distinguishing between common and contract carriage by motor vehicle, said:

In general, there are certain recognized criteria applied in determining whether a motor carrier's operations are those of a common or contract carrier. Under the common law, the primary and controlling test is the presence or absence of a general holding out to serve the public indiscriminately. To supplement this test, or to aid in its application, the commission has evolved, in a long line of decisions, a secondary test or standard, which emphasizes individualization and specialization of service.¹⁰⁷

A three-judge United States district court set aside the commission's decision¹⁰⁸ in *Contract Steel Carriers*,¹⁰⁹ holding in effect that there is no legal basis for application of the "specialization" test and that the number of contracts held by a carrier is not controlling in determining whether the carrier is holding itself out to serve the general public.

The case involved the question of whether or not the carrier had, by virtue of his activities, converted from being an

authorized contract carrier to an unauthorized common carrier.

The evidence showed that in May, 1950, the carrier served one customer, that by July, 1951, it had 13 contracts on file with the commission, and that this number had increased to 69 by the time of the hearing. Additionally the carrier had utilized the services of a solicitor and had purchased an advertisement in an industry journal which failed to state that its services were limited to contract carriage.

APPLYING the tests set forth in *Pregler*,¹¹⁰ as amplified in *Craig*¹¹¹ and *Midwest Transfer*,¹¹² the commission had held that the carrier's operations were lacking in the degree of individuality and specialization necessary for true contract carriage.

The statutory court concluded that the commission had misunderstood the definition of contract carrier; that the words "special and individual contracts or agreements" could not properly be construed as calling for a specialized service required by the needs of a particular shipper; and that they did not limit the number of contracts the carrier may have. In the course of the opinion it said:

. . . It seems to us that under the only reasonable construction of the statutory term, "special contract" means a contract specifically negotiated with the particular shipper, the terms of which may or may not comport with other similar contracts held by the contracting carrier or other carriers of the same classification. . . . "Special," in the phrase under discussion, distinguishes the personal relationship between the private carrier and each individual shipper from the impersonal

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relationship of the common carrier to each member of the general public who applies to him for service which he is required by the public nature of his undertaking to render indiscriminately.¹¹³

In the course of a carefully written opinion the court traced the specialization test from Pregler,¹¹⁴ through Craig,¹¹⁵ Midwest Transfer Company,¹¹⁶ and Doyle Transfer Company.¹¹⁷ It notes that Pregler was decided under the definition of contract carrier as contained in the Motor Carrier Act, 1935,¹¹⁸ which defined a contract carrier as one who renders transport service for hire "under *special and individual contracts or agreements.*" (Emphasis supplied.) The court looked to the 1940 amendments¹¹⁹ and said that the effect of the deletion of the word "special" from the definition of "contract carrier" was to omit the "peg on which the specialization test was hung in Pregler".¹²⁰

Even if we assume the Pregler doctrine to be a permissible interpretation of the modifying word "special" in the 1935 act, the elimination of that term from the amended paragraph cuts the ground from under that doctrine.¹²¹

THUS the clear expression of intention on the part of the congressional con-

ferees in 1940 that the amendments to the definition of contract carrier did not "change the legislative intent of the Congress one iota"¹²² came to grief in 1955.

This decision was affirmed *per curiam* by the Supreme Court.¹²³ Its opinion throws some shadow of doubt upon the discredit which the statutory court had heaped upon the specialization test, for, in the course of its opinion, it said:

. . . A requirement of specialization is supported by respectable legislative history. See, *e.g.*, 79 *Congressional Record* 5651. In this case the ICC found that appellee had not sufficiently specialized its operation. However, we conclude that if specialization is to be read into 49 USC § 303(a) (15) by the legislative history, it is satisfied here since appellee hauls only strictly limited types of steel products under individual and continuing contractual agreements with a comparatively small number of shippers throughout a large area.¹²⁴

The foregoing quotation from the opinion of the Supreme Court indubitably leaves in a pale of obscurity the future of the specialization test. But there can be no doubt the Supreme Court condemned the doctrine that solicitation of additional



Q "THE need of authorized carriers for augmenting equipment led to the widespread use of telephonic arrangements without vehicle inspection to insure safety compliance. Arrangements were not always complete before transportation took place. Some owner-operators obtained loads and then sought a carrier who would issue a billing under a desirable arrangement. Some operators transported freight on the billing of a carrier, without the latter's knowledge, and without paying it any portion of the revenue collected."

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contracts may constitute a holding out. In this connection it said:

We hold also that the fact that appellee has actively solicited business within the bounds of his license does not support a finding that it was "holding itself out to the general public." *A contract carrier is free to aggressively search for new business within the limits of his license.*¹²⁵ (Emphasis supplied.)

CONTRACT STEEL CARRIERS thus absurdly opened Pandora's Box so that contract carriers may aggressively seek expansion of their originally permitted authority. The hope of restraining them within reasonably circumscribed limits under present statutory law appears dim indeed in light of that decision.

Even before the Contract Steel Carriers decision the commission had expressed concern over the problem of regulating contract carriers. In its sixty-seventh annual report¹²⁶ the commission said (page 116) that one of the difficult problems with which it is faced in connection with regulation of motor carriers is "the line of demarcation between contract carriers and common carriers." It said, in this connection:

Experience indicates that many carriers who now hold authority as contract carriers are more properly to be classified as common carriers by reason of the nature of their present operations . . .

In its sixty-ninth annual report¹²⁷ the commission recommended to the Congress that § 209(b) of the act be so amended as (1) to empower it "to limit the person or persons and the number or

class of persons for which a contract carrier by motor vehicle may lawfully perform transportation services, and (2) to provide that motor contract carrier permits may be issued only upon a showing that existing common carriers are unwilling or unable to provide the type of service for which a need has been shown."¹²⁸

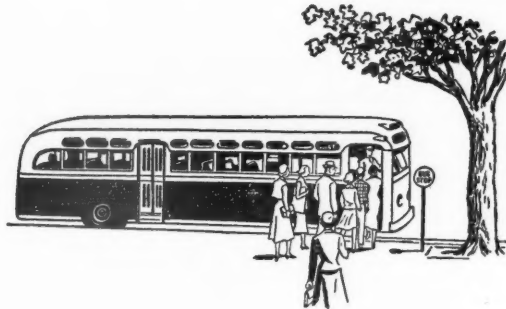
The report of the Presidential Advisory Committee¹²⁹ likewise dealt with contract carriage. It recommended a new definition of contract carriage as being "that transportation providing services for hire but otherwise equivalent to bona fide private carriage . . ."¹³⁰

The report asserted that the definition should be "sharpened to make clear that such carriers are of a specialized nature, and that they should be so regarded only if they clearly substitute for a feasible private carrier operation and do not perform common carrier services which would ordinarily be undertaken by common carriers."¹³¹

THE commission in its comments¹³² on the legislation (HR 6141) stated that in its opinion the new definition of contract carrier as contained in the bill was "indefinite, particularly the added clause, 'equivalent to bona fide private carriage by motor vehicle.'"¹³³ With that comment the writer concurs.

In lieu of the definition, advocated in the Cabinet report and proposed implementing legislation, the commission suggested the following definition:

(15) The term "contract carrier by motor vehicle" means any person which engages in transportation by motor vehicle of passengers or property in interstate or foreign commerce, for compensation (other than transportation



When Contract Carriage Is Needed

“WHILE the proposals embodied in the . . . new definition of contract carrier and amendment of § 209 (b) are definitely steps in the right direction and accordingly deserving of support, it will be observed that they fall short of taking care of the second recommendation for statutory changes as contained in the commission's sixty-ninth annual report (1955), 'to provide that motor contract carrier permits may be issued only upon a showing that existing common carriers are unwilling or unable to provide the type of service for which a need has been shown.'”

referred to in paragraph (14) and the exception therein), under continuing contracts with one person or a limited number of persons for the furnishing of transportation services of a special and individual nature required by the customer and not provided by common carriers.¹⁹⁴

The foregoing suggestion was accompanied by a further recommendation that the second (sic) (third intended) sentence of § 209(b) of the act be amended to read as follows:

The commission shall specify in the permit the business of the contract carrier covered thereby and the scope thereof, and it shall attach to it [,] at

the time of issuance, and from time to time thereafter, such reasonable terms, conditions, and limitations, consistent with the character of the holder as a contract carrier, *including terms, conditions, and limitations respecting the person or persons and the number or class or classes thereof for which the contract carrier may perform transportation service, as may be necessary to assure that the business is that of a contract carrier and within the scope of the permit, and [as are necessary] to carry out [,] with respect to the operations of such carrier [,] the requirements established by the commission under section 204(a) (2) and (6): Provided, [however,] That, [no terms, conditions,*

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or limitations shall restrict the right of the carrier to substitute or add contracts] within the scope of the permit [.] *and any terms, conditions, or limitations attached thereto, the carrier shall have the right to substitute or [to] add to [his or] its equipment and facilities [, within the scope of the permit,] as the development of [the] its business [and the demands of the public] may require.*¹³⁵

WHILE the proposals embodied in the foregoing new definition of contract carrier and amendment of § 209(b) are definitely steps in the right direction and accordingly deserving of support, it will be observed that they fall short of taking care of the second recommendation for statutory changes as contained in the commission's sixty-ninth annual report (1955),¹³⁶ "to provide that motor contract carrier permits may be issued only upon a showing that existing common carriers are unwilling or unable to provide the type of service for which a need has been shown."¹³⁷ That recommendation would require for implementation appropriate amendment of the second sentence of § 209(b) of the act.¹³⁸ Such further amendment appears needed in order to protect common carriage from further encroachment. The omission from the commission's comments on the Cabinet report, made public on December 22, 1955, of this latter recommendation which had been strongly advocated in its last annual report, dated November 1, 1955, is strange. It is hoped that the commission will again advocate the full position which it took in its sixty-ninth annual report.

Implementation of that position,
NOVEMBER 22, 1956

through the recommendation for a new definition of contract carrier, and amendments of § 209(b), as above outlined, would, it is believed, go far toward clarifying the situation obtaining after Contract Steel Carriers.¹³⁹

Leasing of Vehicles

ONE of the thorniest problems in the regulation of motor carriers has been that of leasing of vehicles. In 1951 the commission in Ex Parte No. MC-43, Lease and Interchange of Vehicles by Motor Carriers,¹⁴⁰ adopted rules and regulations respecting the lease and interchange practices of authorized motor carriers subject to its jurisdiction. They provided, among other things, that a contract, lease, or other arrangement for the use of non-owned motor vehicles shall be in writing and "shall specify the period for which it applies, which shall not be less than thirty days when the equipment is to be operated for the authorized carrier by the owner or employee of the owner," and "shall specify the compensation to be paid by the lessee for the rental of the leased equipment; provided, however, that such compensation shall not be computed on the basis of any division or percentage of any applicable rate or rates on any commodity or commodities transported in said vehicle or on a division or percentage of any revenue earned by said vehicle during the period for which the lease is effective."

The reasons underlying the promulgation of these rules and regulations are set forth in the report¹⁴¹ and may be summarized as follows: The commission began a study of leasing practices in 1940. It released a statistical report dealing

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with practices in 1943. The study, suspended during World War II, was resumed thereafter.

Sanction of many leasing practices during the war was attributable to the emergency. After the war there was a huge increase in leasing practices, particularly with respect to the employment of owner-operators.

THE need of authorized carriers for augmenting equipment led to the widespread use of telephonic arrangements without vehicle inspection to insure safety compliance. Arrangements were not always complete before transportation took place. Some owner-operators obtained loads and then sought a carrier who would issue a billing under a desirable arrangement. Some operators transported freight on the billing of a carrier, without the latter's knowledge, and without paying it any portion of the revenue collected.

Authorized carriers extended their operations outside the scope of their certificates or permits under the guise of leases to other carriers. Flagrant violations of the commission's hours of service regulations occurred. Safety requirements likewise were often not observed. Laxity

of inspection of equipment by the lessee was common.

The authority of the commission to promulgate the Ex Parte No. MC-43 rules and regulations was challenged in six separate suits and was ultimately upheld by the Supreme Court in *American Trucking Associations*.¹⁴²

The commission has stated that the purpose of the 30-day provision was to "correct such abuses by breaking up the practice under which truck owners holding no certificates from the commission were transporting commodities under the pretense of a lease of their truck to an authorized carrier. Although usually there was not an actual lease of the truck, the practice came to be known as 'trip leasing' when such transportation consisted of a one-way trip."¹⁴³

SINCE the commission's authority to issue these rules and regulations was confirmed by the Supreme Court on January 12, 1953,¹⁴⁴ the effective date of the 30-day and compensation rules has been changed seven times—the last deferral, ordered on June 18, 1956, being "until further notice."¹⁴⁵

In the meantime legislative proposals dealing with the subject have been almost



Q "... it would seem that, except as limited by the provisions of the new subsection (f) of § 204, there no longer exists any valid reason for the commission further to defer the effective date of the 30-day and compensation rules prescribed in Ex Parte No. MC-43. It seems equally clear that the commission should promptly exercise the full authority conferred upon it by § 204(e) in order that the undesirable leasing practices to which it has called attention may be brought under control in all areas not specifically exempted by the provisions of § 204(f) of the act."

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continuously before the Congress.¹⁴⁶

S 898, in amended form, was passed during the closing days of the 84th Congress and received executive approval on August 3, 1956, as Public Law No. 957.¹⁴⁷

The bill provided for the amendment of § 204 of the act by adding two new subsections. The first (subsection (e)) authorized the commission, subject to the limitations contained in the new subsection (f), to prescribe with respect to the use by motor carriers, under leases, contracts, or other arrangements, of motor vehicles not owned by them—

(1) regulations requiring the lease or other arrangement: be in writing and signed by the parties; specify its term and the compensation to be paid. Additionally the regulations are authorized to require that during the entire period of the lease a copy be carried in the motor vehicle which it covers.

(2) such other regulations as may be reasonably necessary to assure that the motor carriers will have full direction and control of the vehicles and be fully responsible for the operation thereof, as if they were the owners, including safety requirements. Authority to promulgate regulations requiring liability and cargo insurance is also provided.

THE new subsection (f) is a limitation upon subsection (e). It negatives authority for the commission to regulate the duration of a lease of a motor vehicle with driver or the amount of compensation to be paid for such use—

(1) where the leased motor vehicle is that of a farmer or a specified farm cooperative association; or is that of a "private carrier," as defined in § 203, and is regularly used to transport exempt agri-

cultural products or "perishable products manufactured from perishable property of a character embraced within" the agricultural products exemption, and the vehicle is to be used in a single or series of movements, loaded or empty, in the general direction of its home base; or

(2) where the vehicle has completed a movement of exempt agricultural products and is next to be used by the motor carrier in a loaded movement in any direction and/or in one or a series of movements, loaded or empty in the general direction of its home base.

The exact provisions of the two new subsections are set forth in the margin for ready reference.¹⁴⁸

While there may be some uncertainty in the language delineating the scope of the limitations prescribed by subsection (f) it seems clear that the commission now has specific authority, in respect of leasing activities which do not touch upon the agricultural products exemption, to prescribe rules and regulations governing: leases of motor vehicles which must be in writing, signed by the parties, and carried in the vehicle; the term thereof, and the compensation to be paid; the direction and control of the leased vehicle; compliance with safety requirements; and insurance.

Thus it would seem that, except as limited by the provisions of the new subsection (f) of § 204, there no longer exists any valid reason for the commission further to defer the effective date of the 30-day and compensation rules prescribed in Ex Parte No. MC-43.¹⁴⁹

It seems equally clear that the commission should promptly exercise the full authority conferred upon it by § 204(e) in order that the undesirable leasing prac-

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rices to which it has called attention may be brought under control in all areas not specifically exempted by the provisions of § 204(f) of the act.

Conclusions

THE subjects dealt with in this paper are fundamental to the well-being of our transportation economy for they bear directly upon the ability of the common carrier segment of the transportation industry to maintain its financial strength. Common carrier service is the "hard core"¹⁵⁰ of our transportation system. The underlying importance of the common carriers was recently pointed out by Commissioner Arpaia in these words:

My thesis is that true common carriers, whether by rail, highway, or water, must bear the real burden of our nation's transportation requirement; that the fringe operators, private transportation, and its *alter ego*, contract carriage, are only flying buttresses. If we don't preserve the main supports of our transportation structure, it is bound to collapse. While each mode of common carriage has its special aims and problems, they, and the public, should be first concerned with the strength and soundness of common carrier transportation as a whole.¹⁵¹

In view of the importance of the problems discussed herein it is submitted that they should be dealt with at both the administrative and legislative levels as promptly as possible.

It is believed that the following steps would be helpful:

PRIVATE CARRIAGE. 1. Section 203 of the act should be amended by adding thereto a new subsection (c) reading substantially as hereinabove recommended.

2. The definition of "private carrier of property by motor vehicle," § 203(a) (17), should be amended substantially as hereinabove recommended.

Contract Carriage. 1. The definition of "contract carrier by motor vehicle," § 203(a) (15), should be amended in accordance with the recommendation of the commission, hereinabove set forth.¹⁵²

2. Section 209(b) of the act should be amended substantially as hereinbefore set forth.

Leasing of Vehicles. The commission should promptly make effective the 30-day and compensation rules and regulations promulgated in Ex Parte No. MC-43,¹⁵³ as modified,¹⁵⁴ in all situations in which it is not prevented from so doing by the provisions of the recently enacted statute.^{155, 156}



Footnotes

¹⁵⁰Revision of Federal Transportation Policy—a Report to the President—Prepared by the Presidential Advisory Committee on Transport Policy and Organization, April, 1955.

On page 15 this report said:

"(a) Private carriage

"Recommendation: Redefine a private carrier by motor vehicle as any person not included in

definition of a common or a contract carrier who transports property of which he is the owner, provided that the property was not acquired for the purpose of such transportation.

"Private truck operations should be limited to the distribution of the owner's products and supplies from plants, the distribution centers, and the return haul of materials to be used in his own operations.

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"A primary problem in transportation at present concerns the infringement of private carriers upon the field of common carriage and the need for remedial action in the form of more effective regulation of private carriers or enactment of legislation to delineate more adequately the proper place and status of such carriers.

"Legitimate private carriage is not in issue. The practice of shippers handling their own merchandise is sanctioned legally and is frequently sound economically. The problem is created by those practices of private carriers which undermine the common carrier transportation system which must bear the main burden of the nation's transportation requirements in peace and war.

"The commission has pointed out that where so-called private carriage is a subterfuge for engaging in public transportation, it constitutes a growing menace to shippers and carriers alike; is injurious to sound public transportation; promotes discrimination between shippers; and threatens existing rate structures.

"Provision should be made for appropriately franchising, upon application, either as a contract carrier or a common carrier as the case may be, carriers who have been operating legally as private carriers but who would not be entitled to continue to operate as private carriers under the new provisions of the act, and who make application within a specified period."

⁷⁶ S 1920, HR 6141, and HR 6142 (identical bills). Hearings were held on HR 6141 and HR 6142, together with related bills, during the second session by the Subcommittee on Transportation and Communications of the House Committee on Interstate and Foreign Commerce. No report was issued by the subcommittee as a result of the hearings. At the time of preparation of this paper the printed record of those hearings is not yet available. The subcommittee had held hearings on the report itself (Note 75, *supra*) during the first session of the 84th Congress.

⁷⁷ For convenience, all references to sections of the proposed implementing legislation will be to HR 6141.

Section 10 of that bill was drawn to amend those definitions, as presently contained in § 203(a) of the Interstate Commerce Act, so that they would read as follows:

"Section 203(a) As used in this part . . .

"(14) The term 'common carrier by motor vehicle' means any person which holds itself out to the general public to engage in the transportation by motor vehicle in interstate or foreign commerce of passengers or property or any class or classes thereof for compensation, whether over regular or irregular routes, [except] including any person heretofore engaged in transportation as a contract carrier by motor vehicle which the commission shall find in appropriate proceedings not to be engaged in transportation as a contract carrier by motor vehicle as defined hereby, but excluding transportation by motor vehicle by an express company to the extent that such transportation has heretofore been subject to Part I, to which extent such transportation shall continue to be considered to be and shall be regulated as transportation subject to Part I.

"(15) The term 'contract carrier by motor

vehicle' means any person [which, under individual contracts or agreements,] who engages in [the] transportation by motor vehicle of passengers or property in interstate or foreign commerce for compensation (other than transportation referred to in paragraph (14) and the exception therein) on the basis of bilateral contracts for specialized or individualized service or services equivalent to bona fide private carriage by motor vehicle."

(Note that the parenthetical clause has been moved from its present position following the phrase "engages in the transportation" to the new position following "for compensation.")

"(17) The term 'private carrier of property by motor vehicle' means any person not included in the terms 'common carrier by motor vehicle' or 'contract carrier by motor vehicle,' who [or which] transports in interstate or foreign commerce by motor vehicle property of which such person is the owner, lessee, or bailee: [when such transportation is for the purpose of sale, lease, rent, or bailment, or in furtherance of any commercial enterprise.] *Provided, That such ownership, lease, or bailment was not undertaken for the purpose of such transportation.*"

(Matter omitted from the act as presently in effect is set out in brackets. New language is italicized.)

⁷⁸ Appendix HR 6141 attached to letter dated December 22, 1955, addressed to The Honorable J. Percy Priest, chairman, Committee on Interstate and Foreign Commerce, House of Representatives, by J. M. Johnson, acting chairman, Interstate Commerce Commission, p. 43. (Mimeographed copy transmitted to Chairman Priest.)

⁷⁹ E.g., the late J. Carter Fort, vice president and general counsel, Association of American Railroads, p. 13 (mimeographed copy of his presentation at hearings, AAR stencil No. 104942*).

⁸⁰ Philip A. Ray, general counsel, Department of Commerce, testimony at hearings on April 24, 1956 (stenographic transcript of hearings, p. 94).

⁸¹ *Op. cit.* Note 78, *supra*.

⁸² "Section 203(c). Except as provided in § 202(c), § 203(b), in the exception in § 203(a) (14), and in the second proviso of § 206 (a) (1), no person shall engage in any transportation for compensation, by motor vehicle, in interstate or foreign commerce, on any public highway or within any reservation under the exclusive jurisdiction of the United States, unless there is in force with respect to such person a certificate or a permit issued by the commission authorizing such transportation.

"A person shall be deemed to be engaged in transportation if, through the selection, approval, or employment of drivers or other employees (other than as a bona fide officer or employee), through the control over facilities, or through other means, directly or indirectly, he exercises direction or control over the movement of passengers or property, or assumes responsibility for the persons or property being transported or for the operation of the vehicles over the highways.

"A person shall be deemed to be engaged in transportation for compensation if he receives for such services a reward or consideration, regardless as to

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whether the compensation, reward, or consideration is received directly or indirectly, through the device of leasing or renting vehicles, employment, the furnishing of drivers or other employees, or management services, the buying or selling of property, or in any other manner by which compensation, reward, or a consideration is received in return for the direction or control of or the responsibility for vehicles used in transportation by motor vehicle in interstate or foreign commerce."

⁸³ "All motor carriers engaged in transporting in interstate or foreign commerce for compensation should be classified as either common carriers or contract carriers and, except to the extent that they are exempted by specific provisions in the act, regulated as such. Since the objective is to limit the classes of carriers who may operate as contract carriers and since it appears undesirable and questionable to declare all other for-hire carriers to be common carriers, we are of the opinion that desired results may best be achieved by permitting interstate and foreign motor carrier transportation for compensation only by specified classes of carriers; *vis*, (1) common carriers as presently defined in the act and (2) contract carriers as defined in the revised definition that is adopted. We recommend, therefore, that the proposed amendment of the definition of a motor common carrier in § 203(a) (14) not be adopted and that in lieu thereof there be added to the act a provision designated § 203(c) . . ." (Page 37 of the Appendix, Note 78, *supra*.)

⁸⁴ Matter omitted from the commission's proposal is set out in brackets. New language is italicized.

⁸⁵ Letter dated March 28, 1952, from Walter M. W. Sniawn, chairman, Charles D. Mahaffie, and John L. Rogers, legislative committee, Interstate Commerce Commission to Honorable Edwin C. Johnson, chairman, Senate Committee on Interstate and Foreign Commerce, Hearings before the Committee on Interstate and Foreign Commerce, United States Senate, 82nd Congress, 2d Session, on Bills Relative to Domestic Land and Water Transportation, p. 728 (1952).

⁸⁶ 26 USCA paragraph 162.

⁸⁷ *Ibid.*, see cases cited.

⁸⁸ Matter omitted from definition as presently contained in the act is set out in brackets. New language is italicized.

⁸⁹ 42 MCC 193, 205.

⁹⁰ 112 F Supp 639, affirmed 207 F2d 517.

⁹¹ 7 Fed Carr Cas paragraph 31,797.

⁹² Act of August 9, 1935, 49 Stat 543.

⁹³ Section 209 (a) of the Interstate Commerce Act.

⁹⁴ Act of September 18, 1940, 54 Stat 898.

⁹⁵ Note 34, *supra*.

⁹⁶ Note 37, *supra*.

⁹⁷ *Op. cit. supra*. Note 78, p. 41.

⁹⁸ Keystone Transportation Co. Contract Carrier Application, 19 MCC 475, 1 Fed Carr Cas paragraph 7,395 (1939).

⁹⁹ *Id.*, at 498.

¹⁰⁰ Pregler, Extension of Operations, 23 MCC 691, 2 Fed Carr Cas paragraph 7,596 (1940).

¹⁰¹ *Id.* at 695.

¹⁰² Craig, Contract Carrier Application, 31 MCC 705, 3 Fed Carr Cas paragraph 30,124 (1941).

¹⁰³ *Id.* at 712.

¹⁰⁴ Transportation Activities of Midwest Transfer Co. 49 MCC 383, 7 Fed Carr Cas paragraph 31,618 (1949).

¹⁰⁵ See also Doyle Transfer Co. v. United States (1942) 45 F Supp 691.

¹⁰⁶ Refrigerated Transport Co., Inc. v. Central & Southern Truck Lines, Inc. 11 Fed Carr Cas paragraph 33,292 (1955).

¹⁰⁷ *Ibid.*

¹⁰⁸ Motor Ways Tariff Bureau v. Steel Transportation Co., Inc. 62 MCC 413.

¹⁰⁹ Contract Steel Carriers, Inc. v. United States (1955) 128 F Supp 25.

¹¹⁰ 23 MCC 691.

¹¹¹ 31 MCC 705.

¹¹² 49 MCC 383.

¹¹³ 128 F Supp 25, 30.

¹¹⁴ 23 MCC 691.

¹¹⁵ 31 MCC 705.

¹¹⁶ 49 MCC 383.

¹¹⁷ 45 F Supp 691.

¹¹⁸ Act of August 9, 1935, 49 Stat 543.

¹¹⁹ Note 34, *supra*.

¹²⁰ 128 F Supp 25, 31.

¹²¹ *Ibid.*

¹²² Note 37, *supra*.

¹²³ (1956) 350 US 409, 13 PUR3d 109.

¹²⁴ *Id.* at 411.

¹²⁵ *Ibid.*

¹²⁶ 67th Annual Report of the Interstate Commerce Commission (November 2, 1953).

¹²⁷ 69th Annual Report of the Interstate Commerce Commission (November 1, 1955).

¹²⁸ *Id.* at 131. The commission supported these recommendations as follows:

"Under the proviso of § 209(b) of the act, the commission is prohibited from restricting a motor contract carrier from substituting or adding contracts within the scope of its authority. As a result some contract carriers have so many effective contracts that they are actually rendering a specialized common carrier service comparable to the specialized service rendered by common carriers of automobiles, liquid freight, household goods, and others, and they are holding themselves out to serve any shipper willing to enter into contracts with them.

"The commission has interpreted the contract carrier authority as requiring specialized service or dedication of equipment which a common carrier cannot give. However, even though the original authority is based on specialized service,

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there is no guaranty, after a permit has been granted, against a contract carrier supplanting the service of a common carrier by subsequent contract arrangements with other shippers. The common carrier has no protection against such inroads and the commission has no control over the situation. The suggested amendment would give the commission the necessary power to restrict the number of contract arrangements of contract carriers.

"The further recommendation to permit the issuance of motor contract carrier authorities only upon a showing that existing common carriers are unwilling or unable to provide the required type of service, would give the commission a further measure of control over the expansion of contract carriage and, at the same time, would serve to protect shippers whose peculiar needs cannot adequately be met by a common carrier. It would have the added advantage of allowing denial of a contract carrier application where no service other than dedication of equipment is needed by the shipper or proposed by the applicant, if, in the circumstances, a common carrier could and would dedicate equipment.

"If the act were amended as suggested, a genuine specialized service would have to be shown."

¹²⁹ Note 75, *supra*.

¹³⁰ *Id.* at 15.

¹³¹ *Id.* at 16.

¹³² Note 78, *supra*.

¹³³ *Id.* at 39.

¹³⁴ *Id.* at 43. The recommendation would thus change existing law as follows:

"(15) The term 'contract carrier by motor vehicle' means any person which [under individual contracts or agreements,] engages in [the] transportation by motor vehicle of passengers or property in interstate or foreign commerce, for compensation (other than transportation referred to in paragraph (14) and the exception therein), *under continuing contracts with one person or a limited number of persons for the furnishing of transportation services of a special and individual nature required by the customer and not provided by common carriers.*"

Matter deleted from present law is set out in brackets. New language added is italicized. Note the transportation of the parenthetical exception clause similar to that contained in the new definition as proposed in HR 6141. See Note 77, *supra*.

¹³⁵ *Id.* at 53. New matter is italicized. Deleted matter in brackets.

¹³⁶ 69th Annual Report of the Interstate Commerce Commission (November 1, 1955), p. 131.

¹³⁷ *Ibid.*

¹³⁸ Such an amendment might read as follows:

"Section 209(b) . . . Subject to § 210, a permit shall be issued to any qualified applicant therefor authorizing in whole or in part the operations covered by the application, if it appears from the applications (sic) or from any hearing held thereon, that the applicant is fit, willing, and able properly to perform the service of a contract

carrier by motor vehicle, and to conform to the provisions of this part and the lawful requirements, rules, and regulations of the commission thereunder, *that existing common carriers are unwilling or unable to provide the type of service for which a need has been shown*, and that the proposed operation, to the extent authorized by the permit will be consistent with the public interest and the national transportation policy declared in this act; otherwise such application shall be denied."

(New matter italicized.)

¹³⁹ 128 F Supp 25, affirmed 350 US 409.

¹⁴⁰ 52 MCC 675.

¹⁴¹ *Ibid.*

¹⁴² American Trucking Associations v. United States (1953) 344 US 298, 98 PUR NS 358.

¹⁴³ Letter dated March 31, 1955, addressed to The Honorable Warren G. Magnuson, chairman, Senate Committee on Interstate and Foreign Commerce, by Richard F. Mitchell, chairman, Interstate Commerce Commission, in connection with S 898, 84th Congress, 1st Session.

¹⁴⁴ 344 US 298.

¹⁴⁵ *Date of Deferral: Postponed Effective Date:*

August 14, 1953	March 1, 1954
November 30, 1953	March 1, 1955
February 2, 1955	March 1, 1956
October 6, 1955	December 1, 1955
November 15, 1955	March 1, 1956
January 23, 1956	July 1, 1956
June 18, 1956	• Until further notice

¹⁴⁶ S 925 and HR 3203, 83rd Congress, 1st and 2d Sessions, and S 898, 84th Congress, 1st and 2d Sessions.

¹⁴⁷ Act of August 3, 1956, 70 Stat 983.

¹⁴⁸ "Section 204(e) Subject to the provisions of subsection (f) hereof, the commission is authorized to prescribe, with respect to the use by motor carriers (under leases, contracts, or other arrangements) of motor vehicles not owned by them, in the furnishing of transportation of property—

"(1) regulations requiring that any such lease, contract, or other arrangement shall be in writing and be signed by the parties thereto, shall specify the period during which it is to be in effect, and shall specify the compensation to be paid by the motor carrier, and requiring that during the entire period of any such lease, contract, or other arrangement a copy thereof shall be carried in each motor vehicle covered thereby; and

"(2) such other regulations as may be reasonably necessary in order to assure that while motor vehicles are being so used the motor carriers will have full direction and control of such vehicles and will be fully responsible for the operation thereof in accordance with applicable law and regulations, as if they were the owners of such vehicles, including the requirements prescribed by or under the provisions of this part with respect to safety of operation and equipment and inspection thereof, which requirements may include but shall not be limited to promulgation of

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regulations requiring liability and cargo insurance covering all such equipment.

"(f) Nothing in this part shall be construed to authorize the commission to regulate the duration of any such lease, contract, or other arrangement for the use of any motor vehicle, with driver, or the amount of compensation to be paid for such use—

"(1) where the motor vehicle so to be used is that of a farmer or of a co-operative association or a federation of co-operative associations, as specified in § 203(b) (4a) or (5), or is that of a private carrier of property by motor vehicle as defined in § 203(a) (17) and is used regularly in the transportation of property of a character embraced within § 203(b) (6) or perishable products manufactured from perishable property of a character embraced within § 203(b) (6), and such motor vehicle is to be used by the motor carrier in a single movement or in one or more of a series of movements, loaded or empty, in the general direction of the general area in which such motor vehicle is based; or

"(2) where the motor vehicle so to be used is one which has completed a movement covered by § 203(b) (6) and such motor vehicle is next to be used by the motor carrier in a loaded move-

ment in any direction, and/or in one or more of a series of movements, loaded or empty, in the general direction of the general area in which such motor vehicle is based."

¹⁴⁹ 52 MCC 675. Note modification of proposed rules and regulations in 64 MCC 361 (1955).

¹⁵⁰ *Op. cit. supra*, Note 75, at 14.

¹⁵¹ Anthony F. Arpaia, Interstate Commerce Commissioner, speaking at the closing exercises of the eighth Rail Transportation Institute of the American University, March 26, 1954.

¹⁵² *Op. cit. supra*, Note 136.

¹⁵³ 52 MCC 675.

¹⁵⁴ 64 MCC 361, 384.

¹⁵⁵ Act of August 3, 1956, 70 Stat 983.

¹⁵⁶ The author recognizes that this paper deals with neither the vast subject of exempt carriage nor the treatment afforded contract carriers under § 218 of the act whereby they are required merely to file with the commission and publish schedules containing their "minimum" rates or charges as opposed to the duty of common carriers under § 217 of the act, to publish and observe their actual rates. Important as these topics are, they were not felt to be within the scope of this paper, nor would the limitations of time permit their treatment even in cursory form.



Power from the Atom

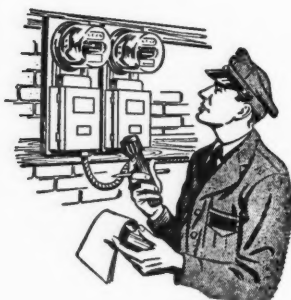
"**G**REAT progress can be expected in the development of atomic energy for peacetime purposes, such as electric power production. The fact that private enterprise, as well as government agencies, will participate in the work is assurance that the nation will get maximum results in a minimum of time.

"However, there seems to be an idea in the public mind that the atom will revolutionize the electric business in the relatively near future. And this idea, to experts active in the field, just isn't tenable.

"One such expert recently said that while total electric generating capacity in this country is expected to reach 200,000,000 kilowatts by 1965—double the present figure—it is doubtful if more than 3,000,000 kilowatts will come from atomically fueled plants. He added that 'economical and technical considerations make it certain that the enormous requirements for electric power in the next fifteen years will be satisfied in the great majority by conventionally fueled plants.'

"Many other authorities have expressed similar views. They do not minimize the potential importance of atomic energy. But they are convinced that the changes it will bring about will be less revolutionary, and will occur over a much longer period of years than many people now believe."

—EXCERPT from *Industrial News Review*.



Public Relations of Utility Metering

While this article deals primarily with metering by water utilities, it touches on a number of fundamental policy questions which are of equal interest to gas and electric utility services. As a matter of fact, the approach towards the public relations aspect of water metering may for that very reason be all the more interesting to other utility groups because it is not a subject too openly or widely discussed from that starting point.

By JOSEPH S. ROSAPEPE*

METERING problems can often become an important aspect of a water utility's public relations. Actually, the use of meters is part of the distribution system's operation and as such is part of the whole management picture.

However, because meters represent the cash register of the waterworks industry, they touch the customer's pocket and thus metering becomes a vital element in a utility's public relations.

Under these circumstances it may be worth considering the possibility of turning problems into opportunities for improving the public relations of a water system.

There is no denying that waterworks systems are always deep in public relations. An organization that exists to provide a public service, and especially one that is a monopoly in its community, rarely can escape this fact.

Public opinion is very important because it affects the way a water utility operator can do his job. Attitudes of the public can have an important effect on the means provided for current requirements and funds for future planning and expansion.

Every community is different and has its own particular problems; yet, in general, there are some very definite common denominators.

To do their job well, utility operators need the support and understanding

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PUBLIC RELATIONS OF UTILITY METERING

of their communities. And these are needed most when there are problems: such as problems of shortages, need of new treatment facilities or new and expanded transmission facilities.

Organized or planned public relations can contribute to inspiring that support. Of course, relations with the public are always there, but if nothing constructive is being done about them, public relations can deteriorate and actually turn sour.

Proved experience in the field of business, government, and public utilities has shown that to have good public relations something positive has to be done by way of active cultivation.

There is no doubt that the slogan of the American Water Works Association is quite apt on this point: "Silent Service Is Not Enough."

The first requisite is to provide good service. Most water systems do that or they hear about it soon enough. When the quality or quantity of water delivered is below standard, operators are quickly made aware of conditions and can take remedial action.

Positive Action Needed

BUT since quantity and quality of water furnished by a utility are generally quite adequate, there is the question of doing something positive to let people know how this comes about.

The public relations effort has to be continuous. If the public is kept informed in good times when there are no problems, the likelihood of getting better understanding in time of difficulty is much greater.

Nine times out of ten, complaints and difficulties can be turned into actual *opportunities* for improving public atti-

tudes, by increasing the customer's understanding of the many problems involved in operating a water utility.

A typical example is what happened in Atlanta, Georgia, back in November, 1953. A main break in a 36-inch main poured more than 3,000,000 gallons out on the street, submerging cars and trucks and causing water shutdowns in homes and industries.

Newspapermen were frankly informed about the extent of the break. The efforts to restore service were also described in detail. Reports, the next day, instead of being critical or merely descriptive, were commendatory of the water system's diligence.

Here was a concrete instance of where a troublesome situation was not only cleared up, but in the very process the opportunity was grasped to help shape favorable public opinion by explaining the problems and the efforts to solve them.

Handling Metering Problems

REFERRING specifically to metering, there are two types of trouble that may arise. One kind may occur because of a specific water system policy. The other may arise directly from the consumer.

In the first group, a problem may occur when the operator tries to initiate metering. Another is when industrial and commercial meters are in use—and the operator wants to expand into a universally metered system. A third instance may occur if the system has had meters for a long time and it is decided to start a maintenance program.

The other type of trouble comes directly from the customer—generally when his pocket is affected.



The Scope of Public Relations

"GENERALLY, press relations are confused with public relations but they are just a part of it. The amount of work that can be done in this area is still very great. The first thing that must be kept in mind is that newspapers are just as much public service institutions as water systems. Actually, they are more so. Water systems give the people water; newspapers give them ideas, facts, and entertainment. But it must not be forgotten that the information they get from papers helps create the public opinion and shapes the attitudes that operators want in support of their problems in operating a water utility."

In a recent survey it was reported that of 39 such complaints, 24 were based on high bills, and these came from customers who felt the meter was not working right and was overcharging them.

WHAT can be done for each one of these situations?

In the first case—when a utility does not have metering and it wants to start moving from the flat-rate system to a metered rate—it cannot always be undertaken suddenly.

As a rule, it is safe to say that misunderstandings result from lack of accurate information. If people do not know the details of a situation, they are prone to accept any story or rumor they hear.

WHEN waterworks men start thinking about moving from a flat rate to metering, they generally start with industrial and commercial installations.

Since a businessman or utility engineer in a plant pays for electricity, gas, and other commodities, according to the amount used, he does not object too much to getting a meter installed. This is beneficial to the water system because as much as 50 per cent of total revenue in some communities comes from industrial customers.

The public relations aspect can be handled with a personal call by a representative of the utility who can explain why meters are being installed.

In the United States, 90 to 95 per cent

PUBLIC RELATIONS OF UTILITY METERING

of all communities are reported to have meters. However, when we stop and think of these figures, we find that some communities may only have a few meters in some industrial plants, but the towns are listed still as being metered. Other towns may have many meters but only on industrial and commercial installations.

There are a few cities and towns—probably 10 per cent or less—that are faced with the problem of starting from scratch, and in those cases there is the need of educating people to what meters are.

Why Use Meters?

THERE are many reasons for metering. It is a good business for the utility. It is fair to each customer because he does not have to pay for what his neighbor wastes. Basically, the meter is a cash register and contributes to efficiency. One of the things that can be done to make people familiar with meters is to exhibit these devices in the lobby of city hall, or in store windows, so the public can see it is a mechanism and not something mysterious.

Another type of action that can be taken is to explain carefully to the leaders in the community what is being planned. In other words, the operator should discuss plans first with the mayor and the councilmen and then explain it to the reporters.

The project should then be taken up with community leaders like members of the chamber of commerce taxation or utilities committee and leaders of other civic organizations. These should include leaders of women's clubs, too, because they wield much influence in the community.

The second type of problem—that which arises on going from industrial and commercial meters to domestic meters, gets closer to the public relations aspect because here the system is dealing with residential consumers and there may be some possible opposition.

Outside Consultants

THERE are various ways in which something effective may be done. One of the first and most effective measures is the use of an outside consultant. An operator can talk about the necessity of having meters because they conserve water, bring in more revenue, are the fairest way to charge, and all that—and still not get complete understanding. But bring in an outside consulting engineer and the situation may change for the better. The consultant gets a hearing in city council and he gets a hearing before the public, since his views are usually reported in the newspapers.

Besides getting the advice of the outside consultant, and having his views get a hearing, there is the fact that he brings in the experience of other communities.

The third type of public relations problem may arise when a community has a universally metered system and decides to launch a maintenance program. Often people own their meters, and there may be a problem in getting permission to take the meters out and test them.

That sort of problem is an example of what can be encountered with maintenance programs. The difficulty of changing ownership of meters from the customer to the water system can be solved if benefits to the community and to the individual customer are explained by letter and by talks with reporters.

PUBLIC UTILITIES FORTNIGHTLY

Those, in the main, are the three most frequent public relations problems caused when an operator tries to improve the metering practices in his system.

Customer Problems

NEXT we come to the kind of problem initiated by the customer himself. When all goes well the water system is taken for granted. But when a difficulty arises, the customer is interested and receptive because he is concerned as to how the utility's operations affect him. There the situation involves aspects of distribution management.

When there is something wrong and a customer has a complaint, that is the time when opportunity is greatest to get him to understand the utility's position.

When the man or woman comes in, or phones, employee relations are important. It is essential that the operator or his staff take the time and have the patience to listen to the customer's story. Then it is time to explain the utility's problems—why the water system needs support. Generally, this means more funds with which to do the job the customer wants done.

Key people in this phase are not only the employees in the office but also the meter readers. They are important factors in the public relations end of distribution because the meter reader is generally the only person in the water system the average consumer sees.

Because of this, it pays to have neat, uniformed people if possible, or at least meter readers well-trained and informed about water supply and about their own system. They should explain that if the bill is high, it is probably not that the meter is running fast—as some people

think—but there probably are leaks, and it would be worth while to call in a plumber and have those leaks repaired.

Of course, the more leaks that are eliminated, the more reduction there is in waste of water. This causes less demand on the water system and, in turn, means more revenue at the end of the year. Good employee relations are a big part of customer relations, but there are other effective measures than can be taken.

Programs for Schools

SCHOOL systems are very much interested in their communities. Some water superintendents take the time to invite the upper grades and the high schools to visit their systems.

When children come to pumping stations or the filter plant—if the meter shop is in the same location, it is worth having them go through and see the meters being taken apart, cleaned, and repaired. The children will go home and talk about what meters are and what they saw. And that will help create greater understanding of the water system and the "cash register" in particular.

If the meter shop is in a different location, it might be worth while to set up a meter exhibit, consisting of several small and large meters, and meter parts, at the reservoir, at the pumping station, or wherever schoolchildren do visit.

Press Relations

ATHIRD means of improving public understanding is the question of press relations. Generally, press relations are confused with public relations but they are just a part of it. The amount of work that can be done in this area is still very great.

PUBLIC RELATIONS OF UTILITY METERING

The first thing that must be kept in mind is that newspapers are just as much public service institutions as water systems. Actually, they are more so. Water systems give the people water; newspapers give them ideas, facts, and entertainment. But it must not be forgotten that the information they get from papers helps create the public opinion and shapes the attitudes that operators want in support of their problems in operating a water utility.

Newspapers want to print news and if the trouble is taken to furnish them with what they want, the utility will benefit by gaining greater public understanding of its problems.

TYPICAL examples of headlines of newspaper articles show how meters can provide a peg for newsworthy stories. Here is one kind, for instance: "More Water Meters Are Installed for New-comers." The water system apparently gives the reporters a tabulation monthly of the meters that are installed.

Others are: "Water Customers Are Urged to Protect Meters from Cold"; "City Asks Prompt Return of Water Meter Reading"; "Call Back Meter Cards to Be Used This Week"; "Water Company Installing Meter of One Ton." This last one is an example of something unusual that makes news. A very, very large meter, whether it weighs a ton or half a ton, is probably worth a story, and, with that peg, a reporter would probably be interested in other phases as well.

What are meters all about? What do they mean to the water system?

ANOTHER type is the story based on some anniversary or other milestone. For instance, Los Angeles in 1954 had its 500,000th meter installed. Atlanta a year later had its 100,000th meter installed. When those round numbers come up, you can tell it to the reporter, or do like Los Angeles and Atlanta did.

They invited all the city officials and made a big event of it with all the top brass in town there to see this one meter. It was no different from all the other meters except for the fact that statistics are fascinating. The fact that it is the millionth, thousandth, or hundredth meter—whatever it is—the milestone or anniversary provides a very good peg to use metering to tell the story of the water system.

The public relations problems of metering are all part of the water system's public relations. In this area there are many things that can be done. There was a town, according to a typical story, where a sewage lift station had a big sign in front of it, reading "Sewage Pumping Station."

City officials were constantly being harassed by calls complaining of the smell in the neighborhood. Somebody decided to take off the word "sewage," making it read, "Pumping Station." The complaints stopped completely. Nobody smelled any odors. Often little things like that can help solve big problems.



OUT OF THE MAILBAG

Mr. Peterson's Position

My attention has been called to the article on "Government or Nuclear Power Development?" by Ernest R. Abrams, in the August 30, 1956, issue of PUBLIC UTILITIES FORTNIGHTLY. It is stated in the article that William S. Peterson, who is now president of the American Public Power Association, "has called for sufficient federal funds to develop 100,000,000 kilowatts of atomic-powered generating capacity by 1977." This is not true, and I would appreciate very much knowing where this information was obtained.

Neither Mr. Peterson nor any other representative of this association has ever made any such proposal. For your information, I am enclosing a copy of Mr. Peterson's testimony of February 16, 1956, before the Joint Committee on Atomic Energy. In that, Mr. Peterson recommended that the United States accept as a goal for the total United States utility industry an estimate of future growth of nuclear power capacity made on April 1, 1955, by W. K. Davis of the United States Atomic Energy Commission, in his address to the American Power Conference.

If you will refer to the testimony, and read Mr. Peterson's remark in context, you will see that he was talking only of a goal to which the efforts of government and industry should be related. You will find no statement in Mr. Peterson's testimony or in the later testimony of Samuel Morris on the so-called Gore Bill which proposes or implies that the government should pre-empt the generation of power from nuclear energy. We surely do not advocate any such policy.

There certainly is room for differences of opinion on the policy questions raised by the Gore Bill and similar legislation, and I am not trying to pick an argument on these. I

am concerned, however, when an article in a national magazine misrepresents the point of view of this association. I am sure that this was not intentional on your part and would appreciate greatly knowing how it happened that you ascribed to Mr. Peterson a recommendation which he never made.

—ALEX RADIN,
*General manager, American
Public Power Association.*

New Atomic Plant Bill

Now that elections are over, and the complexion of the next Congress, as well as a continuation of the present administration, is clear, there is need for prompt action on a new AEC atomic plant bill. The Gore Bill, in its original form in the 84th Congress at least, was rightly condemned as being possibly the opening wedge of a federal government monopoly in the atomic power plant field. But can private industry any longer risk being pictured as obstructing efforts to have the federal government assist in finding the shortest path to the most efficient, safe, and economical type of nuclear reactor for power development, out of the bewildering choice now available?

I hope your magazine can bring out some articles soon pointing to the need for a unified approach by government, industry, and other interests concerned in getting a bill before Congress to deal with this. It should contain not only safeguards for private enterprise, but also incorporate the insurance and Holding Company Act exemption features blocked in the last Congress.

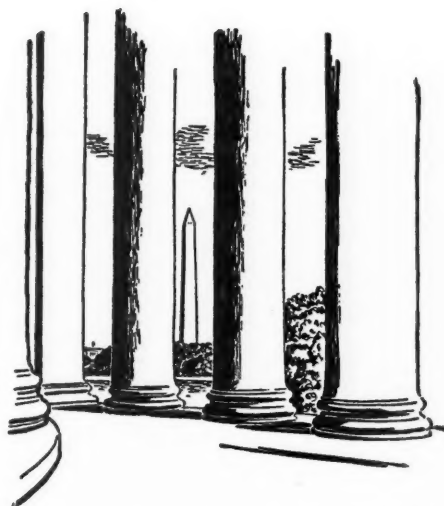
—H. MAXWELL PRENTISS,
New York, New York.

Washington and the Utilities

What Now for TVA?

PRESIDENT Eisenhower's victorious bid for re-election was scarcely an accomplished fact before questions began to be heard in the Tennessee area about the future organization of the Tennessee Valley Authority and its rate policies. Even prior to the election some critics of the present administration had been endeavoring to create the impression that a sharp boost in TVA rates will follow an Eisenhower victory. There had been hints of postelection reorganization of TVA, in that event, to strengthen the hand of TVA Chairman Vogel, an Eisenhower appointee, who has heretofore sometimes found himself in the minority on policy decisions of his own board. Chairman Vogel has denied especially that he seeks to increase power rates by \$30,000,000 a year.

That assertion had been made by S. R. Finley, general superintendent of the Chattanooga Electric Power Board, and long-time advocate of expanding government power generation and distribution. Vogel was accused of advocating a 6 per cent earning on TVA's investment. Finley, supported by a Tennessee Public Power Association spokesman, quoted



Vogel as saying TVA had been operating on 4 per cent, and that TVA would need 6 per cent to operate in the near future. Finley estimated that on the basis of TVA's net earnings of \$60,000,000 last year, additional earnings up to \$90,000,000 would be needed on that basis.

Finley had also noted that the majority of TVA's directors had advocated a continuation of building TVA-owned plants. Vogel, Finley suggested, may receive support for his dissenting views after the election, now that the present administration remains in office. Harry A. Curtis, TVA board member, may be replaced when his term expires this spring.

As far as shaping up the board is concerned, President Eisenhower would have a perfect right, under the law, to make changes right away, if he so pleased. Prior to the election there might have been some political considerations. But if the situation within the TVA board does not shape up in the near future in accordance with administration wishes, the precedent of the late President Roosevelt's experience with another chairman of the TVA—the late Arthur E. Morgan

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—will be recalled. Morgan, after his clash with the President on policy matters, was dismissed by the President for “contumacy.” Relying on an earlier decision by the U. S. Supreme Court in the so-called Humphreys Case (which held that a regulatory official had a quasi-judicial capacity and could not be dismissed on policy differences by the administrative branch), Morgan challenged the right of the President to fire him in the federal courts. But the U. S. Supreme Court subsequently distinguished between TVA and regulatory commissions, upholding the President’s right to name or retain board members of his own choice.

ONE definite result of the election verdict will be to focus administration attention on the controversial question of TVA financing for future expansion. Various bills on this subject in the last Congress did not get very far, probably because of the political controversy bound to ensue, no matter what kind of a measure came up in Congress. But under the more stabilized climate now prevailing, we can expect that TVA itself will have to seek clarification of the important question of where and how it is going to get money for future plant expansion. Memphis is going ahead with plans to build its own plant but other cities in the Tennessee valley are looking towards the expiration of present power contracts with TVA for power supply and wondering what the future holds for them.

Prior to the election, Chairman Vogel had said that TVA power revenues will be enough to finance new power facilities until 1960. After that, he felt that TVA would need congressional approval of a revenue bond-financing plan. He then added:

TVA has no intention or desire of expanding beyond its present area,

thereby encroaching on private producers . . . the job is of sufficient magnitude to keep us all busy.

ANOTHER federal power supply activity which may be in for reappraisal now that the elections are out of the way is the matter of fixing wholesale rates for the Southwestern Power Administration. During the last Congress there had been criticism within the administration that these rates were not in line with costs and that they should be more realistically adjusted. It will also be recalled that the government power bloc Congressmen, led by Senator Kerr (Democrat, Oklahoma), were so alarmed over the possibility that SWPA rates would be increased that a bill to freeze rates at their present levels was actually adopted by both branches of Congress. This was vetoed by President Eisenhower, and that may give the key to future thinking within the administration on SWPA rates.

President Eisenhower said in his veto message that the only purpose of the bill, if enacted, would be to prevent the administration from using its discretion for adjustment of SWPA rates, if necessary. Despite the veto, however, the Interior Department apparently did not care to stir up any agitation on this front by making rate changes up to the present time. But there may be changes made in the not too distant future.

Did NRECA Campaign?

ANOTHER aftermath of the election may be the consideration by the Senate Privileges and Elections Subcommittee of the charge by Senator Curtis (Republican, Nebraska) that the National Rural Electric Co-operative Association was campaigning for the Stevenson-Kefauver ticket. The charge was strenuously denied

WASHINGTON AND THE UTILITIES

by the NRECA general manager, Clyde T. Ellis, who demanded public hearings.

As a matter of fact, there is no legal reason why the NRECA, a business association group representing the REA co-operative borrowers, should not campaign for any ticket it pleases. It is not subject to the Hatch Act.

But it does, of course, raise the temperature of Republican Congressmen to think that farmers and co-operatives in their states were being mobilized into the opposite political camp. At the same time he denied that his organization had been engaged in partisan political activity, Ellis renewed criticism of the Eisenhower administration's policy on government power.

SENATOR Curtis presented his complaint against the electric co-operative group early in October to the Senate Privileges and Elections Subcommittee, headed by Senator Albert Gore (Democrat, Tennessee).

Ellis, in a letter to Gore, made a point of Curtis' call for a closed-door inquiry into his complaint, and Ellis' own counter-proposal for an open study. Ellis denied he had accused the present administration of scuttling the Rural Electrification Administration program. But he said he had not done so "largely for the reason that our people, in Nebraska and elsewhere, with the help of their friends in Congress, have protected the program."

Ellis said administration officials have "propagandized for higher interest rates on REA loans," and budget requests would have resulted in a serious shortage of loan funds if Congress had not over-ridden them. He added that administration power policies "indicate a decided leaning toward monopoly-minded power company policies," which he said would jeopardize the REA program.

As for his association's reports on the voting records of members of Congress on rural electrification issues, Ellis commented that the organization does not make a Congressman's voting record. But, he added, it will continue publication of reports on the attitudes of Congressmen. He charged that Senator Curtis himself has voted for the REA program only 30 per cent of the time.

The chances are good, however, that Senator Gore's committee will put both Senator Curtis' charges and Mr. Ellis' reply into deepfreeze now that the election is out of the way and the tendency is to encourage everybody around Washington to simmer down and cool off.

Even Senator Kefauver's charges that Gerald D. Morgan, special counsel to President Eisenhower, was a former antico-operative lobbyist engaged in trying to smear the co-operative movement with a socialist label will probably be forgotten as one of those exercises in what the late Wendell L. Willkie used to call "campaign oratory."

Hoover Recommendations

HIGH on the list of things for the new Congress to consider will be further progress on the recommendations of the Hoover Commission. President Eisenhower has forwarded a report on the status of Hoover Commission recommendations to the chairman of the now dissolved commission, ex-President Herbert Hoover. The report shows that of the 313 administration-accepted recommendations, 193 are in the process of or have already been put into operation.

The administration, however, has decided to defer a number of the commission's more controversial proposals, including those affecting national power policy. Some of the more important

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Hoover Commission recommendations will require congressional action, the President told Hoover. Specific proposals will be sent to the next session of Congress. The Second Hoover Commission made a total of 479 recommendations.

The administration has decided not to accept 57 of the total number of recommendations, more than half of which dealt with federal lending agencies (such as REA) or with the sale of power from federal projects. The estimate of savings which might be realized from complete acceptance of all of the commission's ideas is placed at \$5 billion.

Among issues likely to stay on the shelf, for the present, are: (1) fixing rates on electric power generated by a government agency, on a basis comparable with the greater costs which power companies face; and (2) permitting electric utility companies to buy a "fair share" of power generated at federal power projects.

The Boiler Fuel Question

THREE parties of the coal industry-labor group have appealed a Federal Power Commission order permitting use of natural gas as boiler fuel to the U. S. circuit court of appeals for the District of Columbia. They seek review of a commission decision authorizing Northern Natural Gas Company to build pipeline facilities to supply natural gas on an interruptible basis to the Black Dog power-generating station of Northern States Power Company near Minneapolis.

The coal interests base their claim on a provision of the Natural Gas Act which, they contend, requires the FPC to prohibit use of gas as boiler fuel unless it is shown to be required by public convenience and necessity. They argue that FPC erred in finding that this case was not one where conservation of natural gas should be controlling.

NOVEMBER 22, 1956

Regulatory Commissions Panned

THE independence of regulatory commissions, especially the chairmen, has come in for some sharp criticism from the House Small Business Subcommittee, headed by Representative Evins (Democrat, Tennessee). These reflections upon the degree of freedom permitted commission chairmen under the Eisenhower administration were earlier slated to appear in a report of the committee. Evins now hints that the report may never see light. "Influential" friends of the administration have taken devious means to that end, according to Evins, who also charged that "persons outside the committee are reviewing and criticizing the draft."

The fact is that the report has not yet had the approval of the House committee, although widely leaked to some columnists. The unpublished report allegedly criticizes the administration-appointed chairmen of the Federal Trade Commission, Federal Power Commission, Federal Communications Commission, Civil Aeronautics Board, and Securities and Exchange Commission. Subcommittee Chairman Evins is evidently not adverse to "backdoor" publicity, considering the fact that the "front door" of committee approval may never be opened to this report.

Informal drafts of the report were circulated to committee members for comment. It met with considerable opposition. The report charges that changes made in the regulatory agencies under Hoover Commission reorganization plans have given regulatory commission chairmen too much authority.

EVINS said that in some cases "the chairman appears to have had a determined purpose to pervert the functions which the agency is intended to perform."

Telephone and Telegraph



Summary of REA Telephone Program Statistics

ACCORDING to a recent REA "round-up" release, more than 735,000 farm families and other rural subscribers will have modern dial telephone service as a result of loans to local telephone com-

panies and nonprofit associations made by the Rural Electrification Administration through September 30, 1956:

REA loans for improving and extending rural telephone service reached a cumulative net total of \$332,000,000 to 490 borrowers on September 30,

	<i>Fiscal Year 1954</i>	<i>Fiscal Year 1955</i>	<i>Fiscal Year 1956</i>	<i>1st Quarter FY 1957</i>
No. of loans	150	147	207	62*
To co-ops	86	57	65	17*
To commercial companies	64	90	142	45*
Amount of loans (gross)	\$74,712,000	\$52,744,000	\$80,980,000	\$20,737,000*
To co-ops	50,666,000	22,786,000	25,140,000	5,679,000*
To commercial companies	24,046,000	29,958,000	55,840,000	15,058,000*
No. of new borrowers ..	70	79	121	28*
Co-ops	42	26	23	7*
Commercial companies.	28	53	98	21*
Amount of applications received in REA	\$67,816,000	\$56,145,000	\$76,277,000	\$15,367,000**
Backlog of applications at end of fiscal year ..	78,217,000	51,089,000	46,766,000	42,691,000*
Funds advanced (net) ..	\$28,440,126	\$39,786,986	\$53,919,279	\$15,861,746*
No. of new dial ex- changes cut over	192	264	291	65*
Miles of line completed .	18,298	18,957	23,109	7,590**
Amount of principal and interest paid by end of fiscal year	\$1,201,277	\$2,159,917	\$4,288,812	\$4,820,720***
No. of borrowers behind schedule in payments as of end of fiscal year	38	29	28	26*
Amount overdue thirty days or more at end of fiscal year	\$376,106	\$512,267	\$553,624	\$565,843*

*As of September 30, 1956.

**As of October 5, 1956.

***As of August 31, 1956.

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1956. Of this amount \$174,000,000 was loaned to 202 co-operatives and mutual associations and \$158,000,000 to 288 commercial companies.

During the twelve months ended June 30, 1956, REA made 207 separate loans to borrowers in 39 states. These loans amounted to \$81,000,000, the highest fiscal year total in the history of the program:

REA made telephone loans to 121 new borrowers during fiscal 1956, compared to 79 new borrowers in 1955 and 70 in 1954.

Applications on hand in REA for telephone loans total about \$43,000,000. Applications for loans being developed in the field amount to about \$52,000,000.

A program of about \$80,000,000 in loans is planned for fiscal year 1957. Funds available for loans during this current year amount to about \$131,000,000.

Selected statistics for the fiscal years 1954, 1955, and 1956, and the first quarter of fiscal year 1957 are given in the table on page 843.

More Long-distance Service

AUTHORITY to build additional communications facilities at a cost of \$38,000,000 was recently sought from the Federal Communications Commission by the Long Lines Department of American Telephone and Telegraph Company, and 13 other Bell system companies. Covered in the application was installation of 3,000,000 channel miles of long-distance telephone facilities, and 2,800,000 channel miles for teletypewriter service, as well as audio facilities for radio and television networks. Construction was proposed for next year, and would constitute

an important part of Long Lines' 1957 program for new facilities.

The application said that the additional circuits are needed to meet a continued increase in communications traffic. Long-distance telephone calls, up about 10 per cent this year from 1955, are expected to rise 6 per cent in 1957. Teletypewriter exchange messages (TWX), up 7 per cent this year from 1955, are expected to rise 10 per cent in 1957.

Authority was requested not only to broaden the message capacity over existing open wire, cable, and radio relay routes, but also over new routes where necessary. The activity would cover practically all sections of the nation.

LONG LINES would bear almost \$32,000,000 of the cost outlined in the application. The other companies which would participate are: The Bell Telephone Company of Pennsylvania; The Diamond State Telephone Company; Illinois Bell Telephone Company; Indiana Bell Telephone Company; The Mountain States Telephone and Telegraph Company; Michigan Bell Telephone Company; New Jersey Bell Telephone Company; Northwestern Bell Telephone Company; The Ohio Bell Telephone Company; The Pacific Telephone and Telegraph Company; Southern Bell Telephone and Telegraph Company; The Southern New England Telephone Company; and Wisconsin Telephone Company.

New York's New "Red Book"

THE new 2,000-page Manhattan classified telephone directory is a "mirror" of the changing times. A comparison of its contents with those of the 968-page classified book of 1928—the first "Red Book" published for Manhattan exclusively—indicates how the lives of Mr.

TELEPHONE AND TELEGRAPH

and Mrs. John Q. Public have been affected by the scientific and mechanical advances of this century.

The great aircraft industry of today, still growing, was represented in 1928 only by the 17 listings under "Aircraft Business" and the 20 for air transportation, supplies, engineers, and tours. Since then space to this industry has expanded to several pages and now includes listings for air freight, airline companies, chartered service, air travel ticket agencies, instructors, and airports.

In 1928 television was not mentioned. The word "television" has cropped up in directories only in recent years. In the latest yellow-paged book, however, 15 pages are required to display the variety of TV classifications from repairs to producing. Changes in motor vehicles are also noted with the disappearance since 1928 of classifications for automobile hat racks, robes, and running boards.

"Horse Clipping," "Horse Furnishings," "Horse Blankets," "Horse Liniments," and "Horseshoers" in the earlier book have given way to these modern-day listings: "Horse Boarding and Rental," "Horse Dealers," "Horse Hair," "Horse Shows"—and even "Horse Meat" and "Horse-radish."

Legal problems apparently are on the increase today since the number of listings for lawyers has more than doubled. People are finding it easier to keep clothes cleaner now, as indicated by the greater number of laundries and self-service laundries. The services for baby are more numerous, too, as illustrated by classifications for carriage and crib rental, diapers, foods, formulas, furniture, and sitters.

CLASSIFICATIONS which have changed coinciding with usage include: "Ash Cans," now "Ash and Garbage Recep-

tacles"; "Undertakers," now "Funeral Directors"; and "Hair Dressers," now "Beauty Shops." Containing 320,000 listings which point the way to "where it can be bought, sold, or serviced," the new "Red Book" illustrates on its familiar red cover the effective use of colored telephones in the home and office. Nearly 800,000 copies will be distributed.

A New York Telephone Company spokesman issued the customary warning against subscribers leaving valuables and money in their old phone books. This always seems to happen whenever a new edition appears.

Direct LD Dialing

AN up-to-date look at one of the telephone industry's fastest-growing developments is provided in a new book, "*Notes on Distance Dialing*," soon to be issued by the American Telephone and Telegraph Company.

It is a revised edition of "*Notes on Nation-wide Dialing — 1955*," which proved to be of value to the entire industry as a guide to technical requirements for distance dialing.

The new edition was prepared by AT&T's operation and engineering department in collaboration with the Bell Telephone Laboratories and with the comments and suggestions of the USITA and the REA telephone engineering staff.

The volume amplifies the 1955 notes with the latest information, brings up to date the maps showing important switching locations, and includes a number of important changes in plans and procedures.

Independent telephone companies that have need for them may obtain copies from Bell system companies throughout the country after November 15th.



Financial News and Comment

By OWEN ELY

Gas Air Conditioning — Mass Production by 1958 Likely

Now that the gas utilities have built up substantial winter heating loads, they are anxious to balance this seasonal factor and avoid dump sales of pipeline gas in the summer months for boiler fuel or other low-rate uses. There are two methods to do this: (1) construction of storage facilities and (2) development of an air-conditioning load. Considerable progress has been made with storage, but it has been discovered that where old gas fields are not available and natural caverns are used, there is some danger of leakage, and hence this method has not proved altogether satisfactory.

In the development of an air-conditioning load the industry faces severe competition from the electric utilities, particu-

larly in the South. The heat pump is now being mass produced, and electric room air conditioners have already been widely adopted throughout the country. While the gas appliance manufacturers have been working on the problem for some years, results have been somewhat disappointing. Hence the industry was much interested in the recent "Pattern for Progress" luncheon at the AGA convention at Atlantic City, summarizing the present status of efforts by various manufacturers to produce gas air conditioners and particularly some counterpart for the electric heat pump. Because of the long-term importance of these results to investors in gas utility stocks, we summarize the talks as follows, omitting the more technical phases.

VICE President Nagler of Peoples Gas described the PAR research program as follows:

PAR air-conditioning research efforts started three years ago with two surveys in parallel so that we would have a firm technical evaluation of the air-cooling art as of that moment. Three things were very clear. First, the necessity to promote the existing commercial units—only Servel at that time; second, the need for immediate evaluation of engine drive; and third, the in-

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vestigation of other less clearly defined ideas for gas air conditioning.

We have used the talents of a number of the major research organizations available in this field and have made substantial progress. Some 14 projects were under way last year and this year will be reduced by eight or nine so that there will be only five or six in 1957. The work is narrowing its objectives and more emphasis is being put on hardware research—that is, process development. The heat pump also is not forgotten.

Valuable information has been made available in four publications ranging from engine improvement to thermodynamics. Other publications will shortly be available, from a critical review of the absorption cycle to the supersonic jet pump.

The cooling process involves refrigeration at a certain level of temperature. The basic principle involved is that of transferring heat from an environment at low temperature to one at a higher temperature by causing a volatile liquid (the refrigerant) to absorb heat at the low temperature by vaporization and to dissipate this heat at the high temperature by condensation. The apparatus used for transferring the refrigerant from the low- to the high-pressure side is technically the refrigeration machine. In the vapor compression system, this machine is actuated by a prime mover driving a compressor, or by a jet compressor, and in the absorption machine by heat.

The problem has been to adapt the efficient compressor system for use with a gas engine driver or a heat engine driver instead of an electric motor, and produce such a combination at comparable first cost, comparable operating cost, and with minimum mainte-

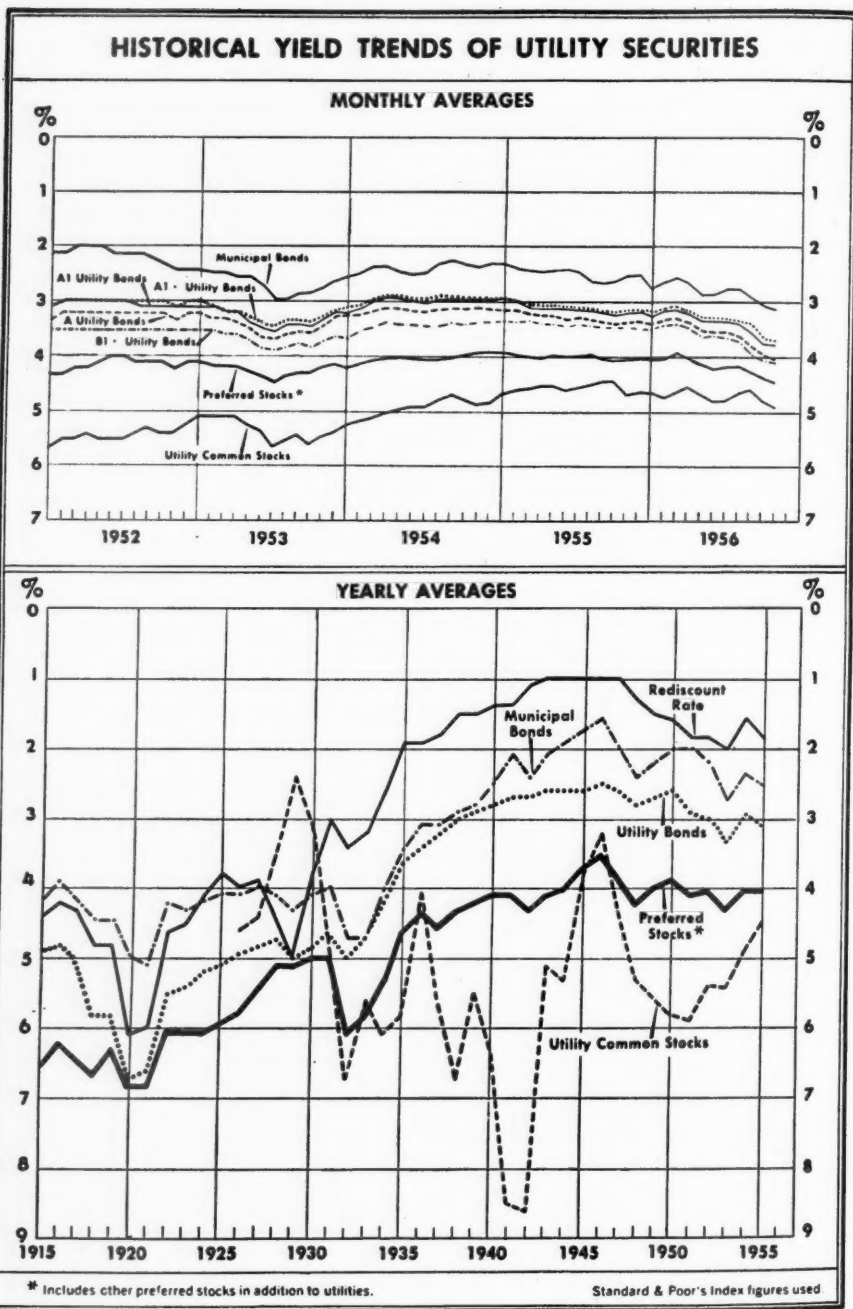
nance. For the absorption system with its great advantage of quietness, the developments have involved the choice of fluids, the method of fluid circulation, the method of heat rejection by air cooler, water cooler, or evaporative condenser. The chosen elements must then be compact, economical, and durable.

SERVEL started work in the gas air-conditioning field as far back as 1934. Working models were completed in 1939, but World War II delayed production until 1946 when some 400 units were installed in homes. Since then thousands of the units have been sold in all sections of the country. These early models provided heat in the form of steam to activate the absorption refrigeration unit for air cooling, and in winter the steam was diverted to a steam coil for house heating. The company experimented during 1946-53 with the object of eliminating the steam system, substituting additional gas burners. Finally, a single-coil unit was developed, with a blower for distributing conditioned air, the entire system being sealed. The unit occupies 10.4 square feet of floor space and weighs about 1,000 pounds. About a year ago 100 of these all-year "Sun Valley" units were distributed for field testing, with successful results. The units require a cooling tower, usually located outside the house.

Carrier Corp. has specialized in the larger machines for commercial and industrial plants. Low-pressure steam or high-pressure water from gas-fired boilers is the source of energy. The company is also working on a domestic unit, but while much progress has been made the unit has not passed the laboratory stage.

Ready-Power Company of Detroit is also in the commercial and industrial field in a range between Servel and Carrier, and operating costs are said to be about

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half of those for comparable electric units. Its units are specially designed for churches, theaters, stores, etc.

COLEMAN is developing a residential air-cooling unit, field-tested by utilities since 1954, which can be installed outside the home. The device has a gas motor with an electric starter, and uses only about eight gallons of water per hour for cooling. The blower already installed in the warm-air furnace is used to propel air from the house over the cold coil, then back through the duct system to various rooms. Coleman is trying to perfect this air conditioner so that it will operate some five to twelve years (depending on locality) before any major overhaul will be necessary; minimum

maintenance is also a goal. The company plans to produce several hundred units next year which will be placed in the hands of a few utilities, which will be asked to keep actual service and cost records.

If costs are reasonably low, Coleman plans to go into mass production in 1958. Preliminary tests indicate that with 70-cent natural gas, operating costs will be half that of the average electric air-conditioning system (assuming that electricity costs 2 cents per kilowatt-hour without any demand charge). The unit could therefore sell at a slight premium over electric units. It is reported that Coleman distributors and dealers have been "clamoring" to start marketing the device and that the company has had hundreds

OCTOBER UTILITY FINANCING PRINCIPAL PUBLIC OFFERINGS OF ELECTRIC AND GAS UTILITY SECURITIES

Date	Amount	Description	Price To Public	Under- writing Spread	Offer- ing Yield	Moody Rating	Success of Offering, Etc.
<i>Bonds</i>							
10/4	\$25.0	Columbia Gas System Deb. S.F. 4½s 1981	100.73	.80C	4.70%	A	a
10/10	8.0	Calif. Elec. Pwr. 1st 4½s 1986	101.65	1.30C	4.40	A	d
10/24	40.0	Cons. Edison 1st 4½s 1986	102.14	.71C	4.13	Aa	c
10/31	28.0	Ohio Power 1st 4½s 1986	100.85	.81C	4.20	Aa	a
<i>Preferred Stocks</i>							
10/1	18.0	Long Island Ltg. 4.40% Conv.	100.00	2.60N	4.40	—	e
10/11	15.0	Texas East. Trans. S.F. 5.85%	100.00	3.00N	5.85	—	b
10/17	40.0	Commonwealth Ed. 4.64%	100.00	1.88N	4.64	—	a
10/24	10.0	Houston Nat. Gas Conv. 5½%	100.00	3.00N	5.25	—	a-f
10/31	10.0	Texas Power & Light \$4.76	100.00	1.45C	4.76	—	a
<i>Common Stock—Offered by Subscription</i>							
10/1	3.1	Southern Union Gas	18.00	*	6.22	9.6	h
10/2	2.7	Madison Gas & Electric	40.00	*	4.50	10.1	i
10/2	7.1	Transcontinental Gas Pipe Line	16.00	N	5.62	7.8	j
<i>Common Stock—Offered to Public</i>							
10/16	12.2	Carolina Power & Light	24.38	.71N	4.92	7.0	d
10/25	5.0	Central Illinois Public Service	29.13	.79C	5.49	8.4	a

*Not underwritten. C—Competitive. N—Negotiated. a—It is reported the issue was well received. b—It is reported the issue was fairly well received. c—It is reported the issue sold somewhat slowly. d—It is reported the issue sold slowly. e—Offered to common stockholders on a 1-for-38 basis and 32 per cent subscribed. Convertible into 4½ shares of common through September 30, 1956. f—Convertible into 2.9 shares of common stock. h—Offered to stockholders on a 1-for-12 basis, with oversubscription. i—Offered to stockholders on a 1-for-5 basis. j—Offered to stockholders on a 1-for-16 basis with oversubscription. Ninety-four per cent subscribed, plus 38 per cent on oversubscriptions.

Source, Irving Trust Company.

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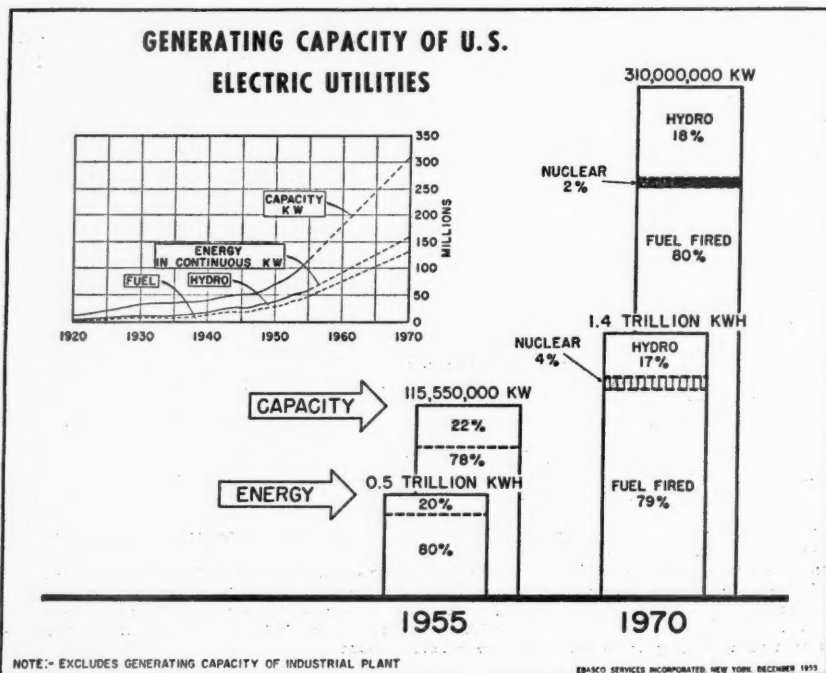
of inquiries from consumers and builders.

A. O. SMITH CORPORATION is engaged in broad research in all methods of gas air conditioning. Some of this work may require years of development. However, experimental field models of a permaglass year-round air conditioner will be installed in the near future. It will measure about $2\frac{1}{4} \times 4\frac{1}{2} \times 6$ feet and will provide for automatic changeover from cooling to heating. Preliminary studies indicate that combined sale price and operating cost will make it competitive with an electric motor-driven device.

Rheem Manufacturing Co., which already has a large stake in the gas appliance field, has adopted for residential use an air-conditioning principle heretofore used only in large commercial systems, the jet pump or jet compressor. Their summer-winter air conditioner is equally

adaptable to circulating air heating and cooling, or to wet heat and chilled water systems. The unit is expected to sell for less than \$1,000 at the distributor level. A major field-testing program is expected to start early next year, with gas utilities participating; mass production should start in 1958. Rheem predicts that if manufacturers should focus a substantial part of their research facilities in this field over the next three to five years, the gas industry should capture a major share of the market. Rheem itself has already discovered means of effecting 30 per cent additional efficiency.

SUMMARIZING, Carrier, Ready-Power, and Servel are making medium-size to large gas-cooling units for commercial and industrial use—a valuable load builder not sufficiently recognized by some utilities. Servel and Coleman are already mak-



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ing residential air conditioners—one a year-round, the other an add-on cooling unit. Carrier, A. O. Smith, and Rheem are also developing residential units which are expected to be ready for field trial shortly. These units cover a wide field in type of process—absorption, engine-driven compressor, and jet compressor.

In concluding the luncheon talks, retiring AGA President Dean Mitchell stated:

Unless we grasp with success this astronomical opportunity, the penalty for failure can be a drastic blow to the gas industry. I am firmly convinced that multiroom coolers are not the final answer to air conditioning. It seems apparent to me that the public will soon demand all year-round home air conditioning, and if we don't provide it, somebody else will. It is equally clear to me that there must eventually be a unit that will not only furnish clean heat but cool as well. I say to you in all sincerity that the fuel that captures the air-conditioning load will also eventually capture the heating load.

The advantages of having air conditioning are . . . (that) the heating peak load occurs during the winter. The summer load requires no additional investment. Most of the summer load is

purchased on a commodity rate, and summer industrial loads and off-peak loads that we have, improve the load factors of the pipeline companies, but an air-conditioning load does this: It also puts to nearly full use our distribution systems.

Our manufacturers and our laboratories are nearly ready, if not already in the final stages of the experimental work. I have asked them if more cash could do a quicker job, and they have asked me to be patient—sell what we have got—help by making field tests—and if you will do, that, the day of gas air conditioning is just around the corner.

Money Markets Are Still Tight

REFERRING to the accompanying table "Yield Yardsticks" and the chart "Historical Yield Trends of Utility Securities" (page 848), it now appears likely that present tight money conditions will continue at least a few months longer, barring a sudden decline in business activity. In this respect the trend seems unlike the readjustment of money rates in 1953, which affected utility bonds and stocks only temporarily (although municipal bonds had suffered a decline dur-

CURRENT YIELD YARDSTICKS

	1956 Nov. 2*	1955-56 Range		1954 Range		1953 Range	
		High	Low	High	Low	High	Low
U. S. Long-term Bonds—Taxable	3.25%	3.25%	2.62%	2.70%	2.41%	3.15%	2.70%
Utility Bonds—Aaa	3.68	3.68	2.93	3.13	2.86	3.43	3.01
Aa	3.74	3.74	2.99	3.19	2.92	3.59	3.07
A	3.81	3.81	3.12	3.37	3.11	3.72	3.23
Baa	4.17	4.17	3.37	3.72	3.37	3.94	3.50
Utility Preferred Stocks—High grade ..	4.38	4.38	3.89	4.09	3.85	4.45	4.01
Medium grade	4.67	4.67	4.19	4.51	4.17	4.87	4.43
24 Electric Utility Common Stocks	4.78	4.80	4.32	5.23	4.50	5.72	5.01
30 Gas Utility Common Stocks	4.66	4.77	4.29	5.22	4.64	5.66	4.74

*Approximate date.

Latest available Moody indices are used for utility bonds and stocks; Standard & Poor's index for government bonds.

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ing the previous seven months in 1952). That move was a more flexible policy of the FRB designed to serve notice that the "easy money" policy of the previous administration had come to an end. The present policy reflects an all-out fight on inflationary trends—an FRB attempt to flag down runaway expansion plans and resulting demands for money.

Referring to the chart, it is interesting to note that utility common stocks have shown somewhat more resistance to the rise in bond yields than in 1953. Also the "spread" between common stock and preferred stock yields has narrowed considerably, while that between preferred stocks and B1. bonds is only about half that of 1952-53. Since March the average monthly yield on common stocks has increased only .37 decimal points (from 4.54 per cent to 4.91 per cent). On the other hand B1. utility bonds now yield

4.08 per cent compared with 3.47 per cent in March, a rise of 61 points. Preferred stocks have also made a somewhat better showing than bonds, the rise in the average yield being only 41 points.

However, these comparisons ignore the high premiums which new issues have to pay over the "averages" discussed above. This is why one frequently sees references to rates on new issues being "the highest since 1932." Thus the yields on two A-rated bonds in October were 4.70 per cent and 4.40 per cent *versus* the "average" yield of only 3.81 per cent; and on two Aa bonds 4.13 and 4.20 per cent *versus* the "average" 3.74 per cent. Yields on new medium-grade preferred stocks without conversion privileges ran as high as 5.85 per cent compared with the average of 4.67 per cent, and on two high-grade issues were 4.64 and 4.76 *versus* the "average" 4.38 per cent.

RECENT FINANCIAL DATA ON GAS UTILITY STOCKS

Rev. (Mill.)			10/31/56 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings*	% In- crease	Aver. Inc. In Sh. Earnings 1951-55	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
Pipelines											
\$ 4	O	Ala.-Tenn. Nat. Gas	19	\$1.20	6.3%	\$1.42Je	8%	17	13.4	86%	37%
15	O	Commonwealth N. G.	29	1.40	4.8	2.74Je	9	X	10.6	51	37
16	O	E. Tenn. Nat. Gas	94	.60	6.3	.80Je	38	X	11.9	75	18
48	S	Miss. River Fuel	32	1.40	4.4	2.12Je	25	6	15.1	66	52
69	S	Southern Nat. Gas	36	2.00	5.6	2.70Se	25	3	13.3	74	33
200	O	Tenn. Gas Trans.	28	1.40	5.0	1.85Je	22	17	15.1	75	22
163	O	Texas East. Trans.	25	1.40	5.6	2.18Je	19	5	11.5	64	23
71	O	Texas Gas Trans.	22	1.00	4.5	2.09Je	28	D	10.5	48	27
75	O	Transcont. Gas P. L.	17	1.00	5.9	1.28Se	18	17	13.3	78	19
Averages					5.4%				12.7	69%	
Integrated Companies											
127	S	American Nat. Gas	66	\$2.60	4.0%	\$4.59Je	65%	8	14.4	67%	35%
50	A	Arkansas Louis. Gas	21	1.20J	5.7	1.48Je	147	10	14.2	81	53
44	O	Colo. Interstate Gas	68	1.25	1.8	5.44Je	NC	45	12.5	23	35
304	S	Columbia Gas System ...	17	.90	5.3	1.53Je	41	3	11.1	59	44
8	O	Commonwealth Gas	6	(a)	4.0a	.26De	D51	D	—	—	72
10	A	Consol. Gas Util.	15	.90	6.0	1.83Jy	87	D	8.2	49	53
240	S	Consol. Nat. Gas	38	1.70	4.5	3.31Je	NC	O	11.5	51	70
178	S	El Paso Nat. Gas	56	2.00	3.6	3.89Jy	68	O	14.4	51	22
40	S	Equitable Gas	29	1.60	5.5	2.31Se	20	4	12.6	69	32
15	O	Kansas-Nebr. Nat. Gas .	35	1.60	4.6	2.61Je	35	3	13.4	61	32
88	S	Lone Star Gas	33	1.80	5.5	2.35Se	11	5	14.0	77	39
23	S	Montana-Dakota Util. ...	23	1.00	4.3	1.48Ma	10	25	15.5	68	30
21	O	Mountain Fuel Supply ..	26	1.20	4.6	1.50De	18	8	17.3	80	59
72	S	National Fuel Gas	20	1.10	5.5	1.68Ma	24	8	11.8	60	58
108	S	Northern Nat. Gas	48	2.20	4.6	3.49Je	20	26	13.8	63	34

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37	S	Oklahoma Nat. Gas	27	1.40	5.2	2.21Je	25	6	12.2	63	32
99	S	Panhandle E. P. L.	95	3.00	3.2	5.01De	18	16	19.0	60	32
11	O	Pennsylvania Gas	24	1.00	4.2	1.63De	D10	D	14.7	61	68
159	S	Peoples G. L. & Coke	158	8.00	5.1	13.28Je	11	6	11.9	60	40
31	O	Southern Union Gas	22	1.12	5.1	1.69De	28	15	13.0	66	34
215	S	United Gas Corp.	33	1.50	4.5	2.23Je	14	7	14.3	67	41

Averages 4.6% 13.5 62%

Retail Distributors

23	A	Alabama Gas	37	\$1.60	4.3%	\$2.45Je	29%	31	15.1	65%	44%
43	O	Atlanta Gas Light	30	1.20	4.0	3.14Je	43	2	9.6	38	38
5	O	Berkshire Gas	15	.80	5.3	1.34Au	111	46	11.2	60	37
4	O	Bridgeport Gas	29	1.50	5.2	2.66Je	29	48**	10.9	56	44
4	O	Brockton-Taunton Gas	15	.90	6.0	.85De	30	42	17.6	106	36
55	S	Brooklyn Union Gas	35	2.00	5.7	2.96Se	17	5	11.8	68	47
1	O	Cascade Nat. Gas	104	—	—	Def.De	—	—	—	—	41
33	O	Central El. & Gas	16	.90	5.6	1.66Je	22	9	9.6	54	17
11	O	Central Indiana Gas	13	.80(b)	6.2	1.12Je	11	D	11.6	71	64
5	O	Chattanooga Gas	6	.30	5.0	.48My	71	14	12.5	63	43
61	O	Gas Service	24	1.36	5.7	2.50Je	37	O	8.6	54	38
6	O	Hartford Gas	38	2.00	5.3	2.50Ma	15	D	15.2	80	52
2	O	Haverhill Gas	20	1.20	6.0	1.82Se	50	14	11.0	66	55
31	O	Houston Nat. Gas	31	1.50	4.8	3.84Je	NC	6	8.1	39	23
16	O	Indiana G. & Water	21	1.00	4.8	1.62Se	17	9	13.0	62	47
6	A	Kings Co. Lighting	16	.90	5.6	1.22Se	10	7	13.1	74	28
40	S	Laclede Gas	16	.80	5.0	1.27Je	32	2	12.6	63	36
4	O	Michigan Gas Utils.	20	1.00	5.0	1.31De	5	14	15.3	76	43
4	O	MidSouth Gas	12	.15	1.3	.72De	71	D	16.7	21	34
37	O	Minneapolis Gas	25	1.30	5.2	2.17Je	33	10	11.5	60	38
14	O	Miss. Valley Gas	21	1.12(d)	5.3	1.98Je	26	—	10.6	57	28
5	O	Mobile Gas Service	25	1.00	4.0	1.39Je	D9	D	18.0	72	33
7	O	New Haven Gas	31	1.60	5.2	2.39De	7	17	13.0	67	63
10	O	New Jersey Nat. Gas	24	1.20(i)	5.0	2.11Ma	40	—	11.4	57	31
70	O	No. Illinois Gas	18	.80	4.4	1.48Au	30	—	12.2	54	49
8	O	North Penn. Gas	13	1.00	7.7	.83De	D33	1	15.7	120	57
183	S	Pacific Lighting	36	2.00	5.6	2.90Se	7	33	12.4	69	44
15	O	Pioneer Nat. Gas	25	1.32	5.3	1.89Je	NC	19	13.2	72	53
13	O	Portland Gas & Coke	31	1.00	3.2	2.10Se	D6	9	14.8	48	40
2	O	Portland Gas Light	11	.75	6.8	1.22De	13	—	9.0	61	25
8	A	Providence Gas	94	.56	5.9	.59De	16	16	16.1	95	64
3	A	Rio Grande Valley Gas	3	.15	5.0	.26Je	—	9	11.5	58	63
3	O	So. Atlantic Gas	13	.80	6.1	.89De	12	D	14.6	90	35
9	O	South Jersey Gas	25	1.40	5.6	2.10Au	34	23	11.9	67	52
24	S	United Gas Impr.	38	2.00	5.3	2.41Se	16	D	15.8	83	64
33	S	Wash. Gas Light	38	2.00	5.3	3.68Je	45	4	10.3	54	42
8	O	Wash. Nat. Gas	16	.40	2.5	.39Je	D26	—	—	100	67
6	O	Western Ky. Gas	13	.60	4.6	1.24Ma	NC	29	10.5	48	35

Averages 5.1% 12.7 66%

RECENT FINANCIAL DATA ON TELEPHONE, TRANSIT, AND WATER STOCKS

Rev. (Mill.)		10/31/56 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings*	% In- crease	Aver. Incr. In Sh. Earnings 1951-55	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
Communications Companies										
Bell System										
\$5,297	S	Amer. T. & T. (Cons.) ..	166	\$9.00	5.4	\$13.37Au*	5%	3	12.4	67% 64%
245	A	Bell Tel. of Canada	47	2.00	4.3	2.43De*	—	3	19.3	82 63
40	O	Cin. & Sub. Bell Tel. ...	85	4.50	5.3	5.45De	6	5	15.6	83 100
187	A	Mountain Sts. T. & T. ...	126	6.60	5.2	8.71Au	2	10	14.5	76 78
285	A	New England T. & T. ...	133	8.00	6.0	9.04Je	33	6	14.7	88 60
715	S	Pacific T. & T.	126	7.00	5.6	9.58Au*	D5	5	13.3	74 58
89	O	So. New Eng. Tel.	39	2.00	5.1	2.06Je	NC	1	18.9	97 64
Averages					5.3%			15.5	81%	

Averages 5.3% 15.5 81%

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Rev. (Mill.)	(Continued)	10/31/56 Price About	Divi- dend Rate	Approx. Yield	Recent Share Earnings*	% In- crease	Aver. Incr. In Sh. Earnings 1951-55	Price- Earnings Ratio	Div. Pay- out	Approx. Common Stock Equity
<i>Independents</i>										
4	O Anglo-Canadian Tel. ...	31	\$.60	1.9%	\$1.70De	7%	19	18.2	35%	48%
33	O British Col. Tel.	45	2.00	4.4	3.28De	21	22	13.7	61	28
2	O Calif. Inter. Tel.	11	.70	6.4	.92Je	D10	—	12.0	76	30
13	O Calif. Water & Tel.	17	1.00	5.9	1.46De	20	11	11.6	68	42
14	O Central Telephone	22	1.00	4.5	2.02Je	11	14	10.9	49	25
3	O Commonwealth Tel.	14	.80	5.7	1.31De	27	26c	10.7	61	32
3	O Florida Telephone	17	.80	4.7	.88De	10	D	19.3	91	40
210	S General Telephone	41	1.80	4.4	2.63De	27	31	15.6	68	34
15	O Hawaiian Telephone	18	1.00	5.6	1.30Se	2	19	13.8	77	47
5	O Inter-Mountain Tel.	13	.80	6.2	.94Je	—	10	13.4	85	55
19	S Peninsular Tel.	39	1.80	4.6	2.02Je	9	5	19.3	89	46
19	O Rochester Tel.	18	1.00	5.3	1.58Je	32	4	12.0	63	34
3	O Southeastern Tel.	16	.90	5.6	1.36Se	43	13	11.8	66	42
8	O Southwestern St. Tel. ...	19	1.12	5.9	1.48Je	36	1	12.8	76	42
28	O United Utilities	20	1.20	6.0	1.41Je	4	8	14.2	85	31
12	O West Coast Tel.	18	1.00	5.6	1.30Je	3	25	13.8	77	43
242	S Western Union Tel.	19	1.00	5.3	2.10De	39	19	9.0	48	85
Averages				5.2%				13.7	69%	
<i>Transit Companies</i>										
22	O Baltimore Transit	11	\$1.60	14.5%	\$1.27De	120%	X	8.7	126%	40%
13	O Cincinnati Transit	5	.30	6.0	.34De	16	—	14.7	88	43
9	O Dallas Transit	6	.35	5.8	.57De	D48	D	10.5	61	51
31	S Fifth Ave. Coach Lines .	27	2.00	7.4	2.85De	D3	O	9.5	70	100
225	S Greyhound Corp.	15	1.00	6.7	1.18De	D12	D	12.7	85	52
21	O Los Angeles Transit	15	1.40	9.3	.94De	D5	5	16.0	149	89
27	S Nat. City Lines	21	2.00	9.5	2.74De	D1	11	7.7	73	93
13	O Niagara Frontier Trans. .	8	.15	1.9	1.47De	—	14	5.4	10	78
70	O Phila. Transit	10	.30	3.0	1.27De	390	D	7.9	24	42
6	O Rochester Transit	6	.40	6.7	.43De	D2	D	14.0	93	40
23	O St. Louis P. S.	12	1.40	11.7	.68De	D15	28	17.6	206	91
16	S Twin City R. T.	17	1.80	10.6	Def.De	—	D	—	—	41
22	O United Transit	5	.60	12.0	1.03De	94	36	4.9	58	48
Averages				8.1%				10.8	87%	
<i>Water Companies</i>										
<i>Holding Companies</i>										
34	S American Water Wks. ...	9	\$.50	5.6%	\$1.06Je	16%	6	8.5	47%	16%
<i>Operating Companies</i>										
4	O Bridgeport Hydraulic ...	31	\$1.60	5.2%	\$2.04De	12%	4	15.7	78%	57%
11	O Calif. Water Service ...	39	2.20	5.6	2.83Se	9	O	13.8	78	29
3	O Elizabethtown Water ...	37	1.00	2.7	3.01Ap	NC	36	12.3	33	56
9	S Hackensack Water	42	2.00	4.8	3.60De	10	11	11.7	56	37
8	O Indianapolis Water A. ...	40	.80	2.0	3.42De	27	27	11.7	23	33
5	O Jamaica Water	34	2.00	5.9	2.83Ma	D5	10	12.0	71	25
4	O New Haven Water	59	3.00	5.1	3.32De	D3	4	17.8	90	63
2	O Ohio Water Service	27	1.50	5.8	2.74Se	42	5	9.9	55	38
7	O Phila. & Sub. Water	32	.50(e)	1.6	2.20De	11	D	14.5	23	29
2	O Plainfield Un. Water ...	65	3.00	4.6	5.47De	37	8	11.9	55	40
3	O San Jose Water	45	2.00	4.4	3.52Se	3	10	12.8	57	43
9	O Scranton-Springbrook ...	17	.90	5.3	1.33Je	D2	8	12.8	68	29
4	O Southern Calif. Water ...	14	.80	5.7	1.08Je	4	8	13.0	74	34
3	O West Va. Water Service	26	1.40	5.4	1.85Se	41	1	14.1	76	17
Averages				4.6%				13.1	60%	

A—American Stock Exchange. O—Over counter or out-of-town exchange. S—New York Stock Exchange. #—July, 1955. Ja—January; F—February; Ma—March; Ap—April; My—May; Je—June; Jy—July; Au—August; Se—September; O—October; N—November; De—December. (a)—Paid 4 per cent stock dividend. (b)—Paid 10 per cent stock dividend. (c)—1952-55. (d)—Paid 25 per cent stock dividend. (e)—Also paid 5 per cent stock dividend. (h)—Paid 25 per cent stock dividend. (i)—Paid 2 per cent stock dividend. (j)—Paid 10 per cent stock dividend. NC—Not comparable. NA—Not available. D—Decrease. X—Deficit in 1951. *On average shares. **1951 was an abnormally bad year.



What Others Think

Utility Spokesmen View Accelerated Depreciation

CONSIDERABLE attention has been given the subject of accelerated tax depreciation for utilities and its treatment for purposes of accounting and eventually for rate making. The full Federal Power Commission passed on this matter in the so-called Amere Gas Company Case (Columbia Gas System) on July 2, 1956, Docket No. G-6358. A number of state commission rulings and orders on this subject were noted and analyzed by this reviewer in his article published in this magazine last August.¹

An exceptional opportunity to compare the views of different utility spokesmen on this subject was afforded in arguments heard by the New York Public Service Commission last June 14, 1956, on the possibility of issuing some further ruling in this matter. But so far, no such action has been taken.

The transcript of these arguments (recently made available) furnished an opportunity to excerpt and compare the contentions of this most distinguished group of legal specialists. The hearings were held by the New York commission for the express purpose of obtaining the views of utility companies in New York state on

the accounting and procedure to be employed with respect to §§ 167 and 168 of the U. S. Internal Revenue Code.

All the principal utilities were represented and in essence three distinct and different views were developed with respect to the accounting and rate-making procedures which involved liberalized depreciation. These were:

(a) Normalized taxes and accretions to surplus both for accounting and rate making.

(b) Normalized taxes and accretions to a tax reserve both for accounting and rate making.

(c) The flow-through method (or actual taxes) for accounting only. No decision for rate making.

AMONG the proponents of the surplus method were Long Island Lighting Company, New York State Gas & Electric Corporation, Central Hudson Gas & Electric Corporation, and Rochester Gas & Electric Corporation. The following are the pertinent excerpts from testimony before the commission:

Long Island Lighting by David K. Kadane, general counsel. After stating the purpose and economic incentives of § 168 (accelerated amortization), Mr. Kadane noted that in order to implement fully

¹"Economic and Regulatory Aspects of Accelerated Depreciation," by C. P. Guercken. PUBLIC UTILITIES FORTNIGHTLY, Vol. 58, No. 3, August 2, 1956.

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congressional intent, taxes should be normalized. He said in part:

... what I mean is that it should include not only the normal computation of taxes which is used by the commission (*i.e.*, FPC) but also should specifically include the difference between what the taxes would have been if accelerated depreciation—in this case accelerated amortization—had not been used on the one hand, and what the taxes would be, if it is used, on the other hand.

This difference in tax, the commission held, should be allowed for rate-making purposes; and when I use the words "normalized taxes," that is what I mean. Fourth, it held that the accumulated amount of that difference should be ignored in computing the rate base. In other words, it should not be subtracted in computing the rate base. The court² quite understood that this would benefit the stockholders of the company; and the court pointed out that it would not harm the consumers of the company . . .

AFTER Mr. Kadane noted the similarities inherent in §§ 167 and 168 of the code, an oblique but nevertheless interesting reference to rate of return and its relationship to liberalized depreciation was introduced by Morton L. Simons, assistant counsel of the commission, by the following question:

Mr. Kadane, in the absence of some special tax treatment, and with reference to utilities in particular, isn't the encouragement in investment, or the need to invest a factor which is considered by regulatory commissions in fixing rate of return?

MR. KADANE: Sometimes.

² Reference is to the court of appeals in the Detroit Case (1955) 11 PUR3d 113.

MR. SIMONS: To the extent to which Congress through tax laws, such as §§ 167 or 168, is now encouraging taxpayers to invest in plant and equipment—should that factor then not be considered by this commission in fixing rate of return?

MR. KADANE: If this commission were to come out with a statement of utter clarity—and I mean no offense—with respect to the precise method which it is using in determining a rate of return, I think it might be possible for me to answer your question with some precision.

However, while I have been reading the cases for a long time, Mr. Simons, I am unable to see the formula with enough clarity, at least through my own eyes, to appreciate how this factor might play a part.

An inference which could be drawn from the above is that a commission, in allowing a utility the benefits of liberalized depreciation, might, as an offset, set a lower rate of return.

As to the amount involved and the accounting for the deferral of taxes, Mr. Kadane said in part:

... some 10 per cent of the income on our common stock in 1956 (arises from the deferral), and will grow *a fortiori* with respect to accelerated amortization. If we did not normalize our income in that respect, net income on our common stock would be increased by approximately 23 per cent from that factor alone.

With respect to the balance sheet—since these sums in our judgment are not available for dividends, we believe they should not be in free earned surplus in our case, not because of any theoretical considerations, however, solely because the sums are so large in

WHAT OTHERS THINK

our case that otherwise investors could be misled, and they are large in our case for two reasons: In the first place, our very rapid growth. The plant account of our company has quadrupled in size in nine years. . . .

The next question is whether this should be in a restricted or earmarked surplus on the one hand, or put in a reserve. The accountants are not all in agreement on this question, so again there may be room for the application of other considerations.

We observe that financial analysis will treat this accumulated amount as part of the capitalization if the company does, and will treat it as not part of the capitalization if the company does not, and I have some exhibits which I would like to offer to demonstrate that proposition.

Mr. Kadane also noted that if such treatment is accorded to the tax deferral then

. . . the Long Island Lighting Company will be able to sell its securities at a better rate if we include this as a restricted surplus than if we put it in a reserve.

As to the rate treatment of the deferral, Mr. Kadane made it clear that it should not be deducted from the rate base if the company is to receive the benefits which Congress intended it to have. This was made clear in the court of appeals decision in the Detroit Case.

ROCHESTER GAS & ELECTRIC CORPORATION by *E. J. Howe, vice president*. Mr. Howe, who advocated the use of normalized taxes both for accounting and rate-making purposes, was also in favor of lodging the deferral in surplus. He said in part:

If the intent of Congress is to be

more fully recognized so that the results will be to materially aid growing businesses in the financing of their expansion, it is clear that the accumulated tax differential must be added to the equity component of the capital structure. The choice of surplus or stated capital as an ultimate repository for these amounts, as well as amounts resulting from other savings, will ultimately result in a strengthening of the company so that other things being equal, the cost of capital will go down. . . .

Now with respect to financing treatment. From the point of view of financing it would be extremely important if the tax differential were to be treated as a part of the common stock equity. In order to obtain the fullest long-term financing benefits these amounts not only must be in equity, but they must be there clearly enough so that analysts and investment bankers will recognize this fact and be willing to build a capital structure on them.

An example will make this clear. Take the case of a company having a 33 per cent equity ratio which it does not wish to impair. If it has a million-dollar accumulated tax differential which does not appear as a part of equity, the only effect is that financing requirements are reduced \$1,000,000. If \$2,000,000 additional had to be raised under these circumstances, the company must sell \$666,000 of common stock and \$1,333,000 of preferred stock and bonds.

If, on the other hand, the million-dollar tax differential does not appear in equity, not only is the financing requirement reduced \$1,000,000 but without impairing the capitalization ratios \$2,000,000 of bonds and preferred stock may be sold without any sale of

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additional common stock. This is an extremely significant difference.

Furthermore, such treatment will go far in mitigating the increasing difficulty of selling public utility common stock. This difficulty results from the fact that many companies have to issue rights to produce proceeds in an aggregate amount substantially more than the dividends they pay. Thus, a holder of common stock who wishes to maintain his proportionate interest in the company must return to the company through rights offerings more than the total of the dividends he has received, and pay an income tax on the dividends as well. The appropriate inclusion of the accumulated tax differential in common stock equity will do much to place public utility equities in a more favorable category in this increasingly important respect.

Mr. Howe also noted that his company, in 1954, used the SYD method in computing tax depreciation.

GENERALLY speaking, the foregoing summarized the position of those New York companies advocating surplus treatment for both accounting and rate making. The companies which favored a reserve method for accumulating the tax deferral were: Brooklyn Union Gas Company, Keystone Gas Company (Columbia Gas System), Kings County Lighting Company, New York & Richmond Gas Company, and New York Telephone Company.

Brooklyn Union Gas Company by Merrill Beatty, partner, Arthur Andersen & Company, auditors of the company. Mr. Beatty in outlining the general principles of liberalized depreciation, said in part:

Basically, as I see the problem, it is one of synchronizing the federal in-

come tax allowance with the costs paid for by the customer.

My firm has consistently taken the position in the case of utility companies that the tax differential between using 5-year amortization or liberalized depreciation and regular tax depreciation should be accounted for as deferred taxes. With the exception of railway clients, where we qualify our certificate because tax deferral accounting is not followed with respect to 5-year amortization, I do not know of any of our utility clients that are not providing for these tax differentials.

MR. BEATTY, in pointing out the fact that in the absence of tax normalization earnings would increase and that commissions might institute rate reductions, said in part:

If this so-called increased income is used to temporarily reduce rates, the companies would not only not have the additional cash available to invest in their business as provided by Congress, but the present customers would be getting a tax benefit in excess of that applicable to the costs they pay for. This benefit will have to be paid for some time and, of course, shift the burden to the future customer who would not get the tax benefits applicable to the costs he pays for, since such benefits have been given to the present customer.

Obviously, if Congress should decide to eliminate the liberalized depreciation provisions from the tax law, there is no question but that the company would have to pay increased taxes for which no provision has been made. The security holder, of course, takes the risk without compensation therefor, that the increased taxes can be collected from the future customers.

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Mr. Beatty also mentioned the fact that if a utility company used the same depreciation rates for book purposes as it did for tax depreciation then

... if such increased book depreciation were recorded, the company would require sufficient revenues to offset the increased cost of service as a result of the higher depreciation expense. In most cases this would mean that the company would have to increase its rates for service. This would result in higher charges to present consumers, which would be offset by lower billings to future consumers at the book depreciation for such property is decreased in subsequent years.

This, of course, raises the question of the equities between the present and the future customers as to the depreciation charges being collected as a part of the rates.

WITH respect to the accounting methods to be used, Mr. Beatty said:

In my opinion the deferred taxes should be recorded on the books as a charge to an appropriate operating expense with a credit to a reserve for deferred taxes. This accounting would be reversed during the later life of the applicable property when straight-line depreciation exceeds the depreciation deductions computed on the accelerated basis.

Noting that some commissions have used a restricted surplus method in accounting for the deferral, the witness said in part:

I know of no accounting principle that will support the premise that an item of cost that is properly chargeable to operating expenses can at the same time be part of the common stockholders' equity.

NEW YORK TELEPHONE COMPANY by *Burton R. Young, vice president and comptroller*. Mr. Young stated that the New York Company had not as yet made up its mind whether it should take liberalized depreciation.

Before such a decision could be made, a thorough study would have to be made of the Treasury regulations which had only just come out. In addition, the attitudes of both the New York commission and of the Federal Power Commission would have to be known, not only as to the proposed accounting procedure but also in the area of rate making.

With respect to accounting, Mr. Young proposed that

We recommend that depreciation expenses continue to be recorded on the straight-line basis. This method has been generally considered to be the one which most equitably apportions the costs of utility plant among the fiscal periods comprising its service life. The fact that the tax code has been amended in a way designed to encourage investment, should not affect these considerations. Furthermore, the code limits the liberalized depreciation treatment to plant placed in service after December 31, 1953. It would be, in our opinion, unsound accounting for a utility to apply different bases of cost allocation to old and new plant which are identical in function and in service life.

We recommend that the actual tax paid be charged to tax expense and an amount equal to the difference between this actual tax and the tax which would have been paid had the straight-line basis been elected be charged to a special subaccount of Account 305 Taxes. . . .

We recommend the establishment of an account, "Reserve for Federal Income Tax Equalization," to which should be made the contra entries to

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income described in (2) above. As already indicated, it is our opinion that the taxpayer by his election to use the accelerated depreciation method has incurred a future liability. This liability should be separately and specifically identified on the balance sheet. We believe that the designation of this account as a reserve will avoid the possible misinterpretations of its significance which might occur if it were set up either in a subaccount under Taxes Accrued or as a reservation of Surplus.

As to the rate-making procedure, Mr. Young said that his company recommended that

... consistent with the accounting proposed above, the actual tax paid, plus or minus the equalization charge or credit, should be allowed as tax expense for rate-making purposes. The total expenses in any period would thus be the same no matter which depreciation method is elected for tax purposes.

If this is not done, revenue requirements would be smaller during the early years of the life of an asset and greater during the later years. If rates were adjusted accordingly, the customer of today would be given an advantage at the expense of the customer of tomorrow; or if rate adjustments were not made, the security owner of today would be in the position of realizing a profit at the expense of his successor.

We recommend that the reserve for tax equalization be considered as invested capital and not be deducted in establishing a rate base. The reserve arises from the willingness of the federal government to defer the collection of certain taxes and is, therefore, in effect, an interest-free loan from the government. The capital so provided is interest free to be sure; but we wish to

point out that it is not risk free and, therefore, not cost free. Any increase in obligations to pay future sums even on a contingent basis, increases the over-all risk of an enterprise. There will have been introduced into the capital structure a new element which, because it takes direct precedence over the equity, adds to the risks of the equity. This and other pertinent factors will, we assume, be given due weight by the commission in establishing fair rates.

Mr. Young was questioned extensively by Mr. Bamman, director of utilities for the public service commission, on the subject of risk to the investment arising from the tax deferral.

KEYSTONE GAS COMPANY and Binghamton Gas Works (Columbia Gas System) by Richard A. Rosan, attorney for the companies. The position taken by these Columbia subsidiaries is that taxes should be normalized and the deferral lodged in a tax reserve. Mr. Rosan noted, with respect to rate making, that

... it is not necessary at this time for this commission to decide finally the exact treatment in rate proceedings of the tax reserve so created.

We feel that the commission may very well want to decide at some future time as it sees how these reserves build up, how it wants to treat that reserve in rate cases.

Mr. Rosan indicated that the Columbia system was using the declining balance method under § 167.

The companies that advocated the "flow-through" method (i.e., actual taxes) were the Consolidated Edison Company of New York, Inc., Niagara Mohawk Power Corporation, and Rockland Light & Power Company.

WHAT OTHERS THINK

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC., by *Charles Eble*, vice president. With respect to the permanency of the tax deferral, Mr. Eble said in part:

I think here is where we appear to part slightly from statements made by some of the representatives for the companies that have already stated their positions for the record.

As I will explain, this point of similarity disappears when rapid depreciation is viewed from the standpoint of group accounting. Consolidated Edison Company has used rapid depreciation for federal income tax purposes beginning with the year 1954.

In giving his reasons for booking actual taxes, Mr. Eble noted that

Our reason for booking the actual tax liability rather than adopting a deferral or normalizing procedure is that a study of the facts pertaining to our company leads us to the conclusion that it will be at least several decades before the depreciation allowance for taxes will be less under rapid depreciation than it would be under conventional methods of depreciation, and perhaps it will never be less.

We believe that accounting recognition is not required for a deferral that is so remote in point of time. We think our conclusion in this respect is confirmed by Accounting Research Bulletin No. 44 issued by the committee on accounting procedure of the American Institute of Accountants, October 19, 1954.

Mr. Eble noted further that

... Our feeling that the time when taxes might be higher as a result of accelerated depreciation is extremely remote is based upon the following considerations:

First, the growth of plant shown by our 5-year construction budget, and by independent long-term projections of capacity requirements, as well as our own projections, indicate that the tax reductions resulting from the use of the SYD method may continue to rise for several decades.

In any event, it is clear that the annual tax reduction will be substantial for many years to come.

Second, mathematical projections related to group properties such as ours show that where annual additions to plant, that is, new plant capacity or replacements accounted for as plant additions, proceed on a fairly substantial level, the use of the SYD method tends to reduce the amount of federal income taxes payable during the first half of the plant assets, and then increases or decreases resulting from the application of these methods offset each other.

Under such circumstances the reductions in taxes will remain permanent so long as the present law remains in effect. At least that is our observation or our conclusion. Whether we look at our aggregate electric, gas, and steam property, or whether we look at our property as electric, gas, or steam separately, it would appear that the likelihood of arriving within the next few decades at a point when straight-line depreciation related to post-1953 property will be in excess of depreciation calculated by the SYD method is so remote that it should not be given recognition in any special accounting procedure. . . .

Mr. Eble indicated that Con Edison has tentatively adopted the sum-of-the-year's digits method for tax depreciation.

—C. P. GUERCKEN

NOVEMBER 22, 1956



The March of Events

Electric Utilities Form Power Pool

EIGHT power and light companies have linked their facilities to form an electric pool called the Pennsylvania-New Jersey-Maryland interconnection, based in Philadelphia. The aim is to provide more efficient and dependable electric service.

R. G. Rincliffe, Philadelphia Electric Company president, said dispatchers had begun operation of the system. He termed it "one of the largest electric power pools in the U. S." The interconnected electric system covers some 48,000 square miles in the 3-state area, supplying power to some five million customers.

In emergencies, the network is de-

signed to send power beyond the present boundaries of the territory to such points as the Canadian border on the north, Asbury Park, New Jersey, on the east, Washington, D. C., to the south, and the Ohio border on the west.

The eight companies have generating facilities totaling 9,877,250 kilowatts and had a combined peak load in 1955 of 8,473,000 kilowatts, according to officials. They are: Philadelphia Electric Company; Public Service Electric & Gas Company; Pennsylvania Power & Light Company; Metropolitan Edison Company; Pennsylvania Electric Company; New Jersey Power & Light Company; Jersey Central Power & Light Company; and Baltimore Gas & Electric Company.

Arizona

Plans for New Power Plant Shelved

WHILE a study is being made of power-generating potentialities along the Colorado river, the Arizona Power Authority announced recently it had temporarily abandoned plans for a highly controversial steam-generating plant at Benson.

Abandonment of the proposal for a

Benson plant was recommended by APA Administrator K. S. Wingfield, who said the authority will be able to meet its need for kilowatt-hours during the interim under an existing contract with Arizona Public Service Company.

A public hearing on building a steam plant at Benson was postponed in September because the Arizona Municipal Power Users Association asked to be excused from it.

THE MARCH OF EVENTS

California

Gets New County Franchise

A NEW 50-year franchise to operate in county territory was granted Southern California Edison Company by the board of supervisors last month, with provisos requiring the utility to refrain from blocking airports with power lines.

In a unanimous vote the supervisors followed recommendations of the county manager that all airports, both public and private, be included in the franchise regulation where such ports come under

jurisdictional standards of the Civil Aeronautics Administration. Smaller airfields from which no scheduled or nonscheduled commercial flights are made under CAA permit, and which have no military importance as determined by the Department of Defense, are excepted.

A move to include in the agreement a proviso calling for posting of a \$500,000 smog-control performance bond designed to force the utility to eradicate air pollution at its steam-generating plants was rejected by the supervisors.

Kentucky

Fight on Gas Increase Pushed

OFFICIALS of six cities in central, northern, and eastern Kentucky have agreed to continue their fight against increased natural gas rates, Lexington's city manager announced early this month.

Officials from Lexington, Covington, Newport, Winchester, Cynthia, and Irvine were scheduled to meet on November 14th in city hall at Lexington to formulate plans to continue the protest.

Lexington's city manager is co-ordina-

tor of a group of city officials organized about two and a half years ago to officially protest the rate increase.

Announcement was made October 22nd that wholesale and retail natural gas customers in central and northern Kentucky and in Cincinnati are in line for refunds of about \$1,130,000. Based on a Federal Power Commission order, the Central Kentucky Natural Gas Company in Lexington would receive that amount from the United Fuel Gas Company.

Massachusetts

Consumers' Counsel Bill Filed

A BILL filed for consideration by the 1957 state legislature would establish a consumers' counsel and create a new state division of necessities of life with broader investigatory and other powers than delegated to the present division.

Similar to bills repeatedly rejected at

past sessions of the state legislature, the new proposal was offered by Representative Leo Sontag, Boston Democrat. He explained the proposed consumers' counsel, who would be named by the governor, would represent the public at all hearings by the state department of public utilities and others affecting prices of food and other essential commodities.

Michigan

Gas Pipeline Case Sent Back

A HOTLY fought case involving the right of a pipeline company to sell

natural gas directly to industry was sent back to the state public service commission recently by Circuit Judge Marvin J. Salmon.

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He directed the commission to review new testimony taken by the court, then affirm or reverse its order of August 3rd authorizing Panhandle Eastern Pipe Line Company to sell gas to the McLouth Steel Company for its plant at Gibraltar.

Michigan Consolidated Gas Company took the case to the circuit court, contending it should have the exclusive right to sell to industries in its territory, and

that the pipeline company should sell only to distributing companies.

Judge Salmon directed the commission to review the testimony within fifteen days. He rejected a request by Panhandle Eastern that Commissioner James H. Lee be disqualified from acting in the case because of his opposition, while assistant corporation counsel of Detroit, to the company's entry into the retail field.

Vermont

To Draft Gas Safety Code

VERMONT's public service commission last month reached a compromise agreement with the Vermont Gas Corporation and a group of citizens relative to proposed extension of natural gas lines into Vermont from present Massachusetts lines.

A petition signed by more than 200 persons was presented, stating they were not opposed to natural gas coming into the Bennington area, but did not want

such authority granted until after a strong regulatory safety code had been adopted by the state.

The agreement reached provided the gas company would not proceed with any installation until state and local regulations were adopted for transmission and distribution.

It was brought out during the hearing, held in Bennington, that Maine and Vermont were the only two states without natural gas safety code regulations.

Washington

PUD Ready to Build Dam

DOUGLAS COUNTY PUBLIC UTILITY DISTRICT officials said recently they were ready to go ahead with plans for Wells dam on the Columbia river, about 45 miles upstream from Wenatchee.

The PUD had received a report from Kaiser Aluminum & Chemical Corporation stating that the \$110,000,000 project is feasible. Kaiser Aluminum's report said the corporation was ready to finance engineering on the dam and enter a power sales agreement.

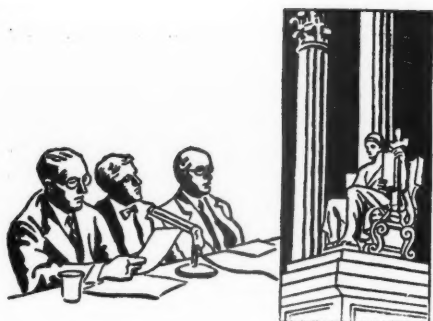
The PUD would build the dam, which would have an initial installed capacity of 414,000 kilowatts and an ultimate capacity of 483,000 kilowatts. A preliminary permit on the project is now held by the

Douglas County PUD and it hopes to apply for a license from the Federal Power Commission next year.

It would be the third PUD project on the Columbia river in Washington. This year construction was started on Priest Rapids dam by the Grant County PUD and on Rocky Reach dam by the Chelan County PUD.

Gas Pipeline Tie-in Made

THE cities of Seattle and Everett were linked to a 1,481-mile pipeline last month, bringing natural gas to the Pacific Northwest from New Mexico. Builders of the \$200,000,000 line said the tie-in completed a trunk extending to the Canadian border.



Progress of Regulation

Trends and Topics

Confiscation When Rate of Return Is Unreasonably Low

THE constitutional prohibition against confiscation bars a regulatory authority from imposing rates which produce no income; it is not a mere prohibition against taking title to property without due process and proper compensation. The right to earnings is as much a property right as the right to the property which can produce the earnings. Questions have arisen, however, as to what earnings must be allowed in order to avoid confiscation. As stated in "*Rate of Return*," by Ellsworth Nichols, page 27, there was support in the early decisions for the theory that a rate could not be set aside as confiscatory so long as it produced some return, but in recent years regulatory authorities have accepted the rule that rates must produce a return which is adequate. There is still a divergence of opinion as to the meaning of adequacy. Is there a difference between an unreasonably low rate of return and a confiscatory rate of return?

Unreasonably Low Rate Termed Confiscatory

The Texas supreme court recently referred to the largely academic concept of "confiscation" being distinct from "mere unreasonableness." The court said that once it admitted that the return is so low as to be unreasonable, this question arises: "Are we not overly metaphysical if we add that there is no constitutional question involved, or no right to judicial review without a statute, unless the rate actually produces red figures on a financial statement?"

Economic values, the court continued, exist largely in relation to other economic values. If the going rate for labor be \$2 per hour, and a given laborer be prohibited by law from charging over 20 cents per hour, is he any the less a slave because he manages to subsist on his 20 cents? The court said that no doubt it is the illusory nature of the difference between "confiscation" in terms of excess of outgo over income and "unreasonable" inadequacy of rates that has caused the federal courts to treat the two as identical for pur-

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poses of constitutional protection under the Fourteenth Amendment. The court referred to the book "*Rate of Return*," *supra*.

The court concluded that a return of less than 2 per cent which the company could earn under ordinance rates qualified as unreasonable under existing economic conditions of general knowledge as well as under the uncontested proof in the case. Therefore, in the opinion of the court, a temporary injunction should have been granted. *General Teleph. Co. of the Southwest v. City of Wellington*, October 3, 1956 (reviewed in PUBLIC UTILITIES FORTNIGHTLY, issue of November 8, 1956, page 798).

The lower court, in denying a temporary injunction, had expressed the opinion that since the record showed a small net rate of return, the rate was not shown to be confiscatory. The court had declared that "A rate may be unreasonable and may not yield a fair return upon the fair value of the property or investment and yet at the same time not be confiscatory" (9 PUR3d 263, 265).

Zone of Reasonableness

Contrary to the view expressed in some of the early cases, it is now the settled doctrine of federal courts that rates must produce an adequate return rather than something above an operating loss. In the *Bluefield Case* (PUR1923D 11), the Supreme Court said that rates which are not sufficient to yield a reasonable return are unjust, unreasonable, and confiscatory.

Some authorities, however, have approved the principle stated by the District of Columbia commission recently in the *Chesapeake & Potomac Telephone Company Case* (6 PUR3d 222) that "there is an area for the exercise of discretion by regulatory bodies between the levels of confiscation and of unreasonableness to consumers." An Illinois court, in the *Iowa-Illinois Gas & Electric Company Case* (1 PUR3d 457), ruled that the question of whether or not a rate of return constitutes confiscation is a different question from determining a reasonable return, as a reasonable rate is something other or higher than one not strictly confiscatory. This zone of reasonableness above the point of confiscation was also recognized by the Virginia supreme court in a case involving the *Chesapeake & Potomac Telephone Company* (89 PUR NS 33). The court said there was a reasonably wide area in which the commission could exercise its legislative discretion.

Among the courts which did not recognize a zone of reasonableness between a fair return and a nonconfiscatory return was the federal court which enjoined rates fixed by the Indiana commission with the statement that some authorities seem to hold that although a rate may be lower than the facts in the case may possibly justify, yet it may not be confiscatory. The court said there may be a conflict in evidence upon the question as to what will induce investment in utilities and as to what is a fair and reasonable return, but when all the evidence has had proper consideration and a rate of return arrived at, then unquestionably "that rate of return should be allowed and any lower rate would be confiscatory" (PUR1925A 363). An Indiana court said that "an unreasonably low rate is a confiscatory rate" (93 PUR NS 480). The South Dakota supreme court stated that it is a fundamental principle of rate

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making that a utility is entitled to a fair return and that rates "not sufficient to yield such return are unreasonable and confiscatory" (85 PUR NS 368).

There still seems to be a conflict of opinion as to a zone of reasonableness. The confusion of such terms as "adequate," "reasonable," "fair," and "non-confiscatory" is apparent in the decisions. A federal judge, in one case, recognized "a marked distinction between a rate which is not confiscatory in its character and a rate which is fair from an economical and commercial sense." He said that a rate of return may be sufficient to meet constitutional requirements and at the same time fail to encourage and justify the operation of a utility business. Later in the case, however, he said that a rate which is so low as not to enable the company to pay legitimate expenses and realize a "fair" return is a rate which is confiscatory (17 PUR NS 241).

This "zone of reasonableness" above the confiscation point is discussed in "*Rate of Return*," by Ellsworth Nichols, page 48.

Review of Current Cases

City Excise Taxes Passed on to Local Consumers

EXCISE taxes levied by municipalities against a utility should be passed on directly to the customers within the jurisdiction of the taxing authority, the Wyoming commission ruled in a preliminary opinion and order issued in a proceeding brought by Montana-Dakota Utilities Company for gas and electric rate increases. Such taxes were required to be surcharged pro rata on customers' bills. Only the tax issues were decided in the preliminary ruling.

The commission noted that local officials in quest of new ways to raise revenue that will have no appreciable impact on taxpayers have singled out utilities for the special tax treatment. The utilities have no control over the rate or application of municipal tax levies. This taxing authority has not been limited by the state legislature, and since the amount of the levies is not a judicial matter, the courts cannot limit it. Such taxes are gradually increasing utility operating

costs to the point where they interfere with the rate-making process.

Discrimination

Municipal excise taxes, the commission said, whether denominated as license taxes, occupation taxes, business taxes, privilege taxes, or otherwise, if charged as general operating expense against consumers residing beyond the municipality levying the taxes, constitute undue discrimination as to them. They receive no benefits from the exactions. The burden should be placed upon the subscribers in the particular localities in which the taxes are levied. The commission held that it had ample power to prescribe the treatment to be accorded municipal excise taxes, since, in determining reasonable rates, it has authority to consider operating expenses and to prescribe the treatment to be given discriminatory costs incurred in the pursuit of a utility business.

If the consumers of an entire system

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are required to bear the burden resulting from special taxes or fees imposed by one city, then each other city served by the company would be encouraged, if not forced, to impose similar taxes upon the company in order to equalize the benefits and burdens for the consumers within its corporate limits. On the other hand, if the consumers within a city are required to bear the special tax burdens imposed by that city, those consumers will keep such special taxes within reasonable limits.

Franchise Payments a General Expense

Reasonable franchise payments, the commission ruled, should be treated as a general operating expense and charged against all the company's consumers, whether within or without the jurisdiction of the franchise-granting authority. The grant and acceptance of a franchise constitute a contract, valuable consideration being given by both parties. The commission observed that the rights accruing

to the utility under a franchise redound to the benefit of all its consumers and not merely to those within the boundaries of the franchise-granting authority.

To the extent, however, that such payments are in excess of a reasonable rental for the use of city streets and grounds, said the commission, such excess should be treated as a tax exaction and charged entirely against consumers residing within the city limits. When franchise payments appear to be excessive, the commission has authority to apportion the payment between general operating expense and the local ratepayers. Such a determination is a part of the rate-making process.

A particular franchise payment of one per cent of gross receipts from local consumers was held to be reasonable. But any franchise payment in excess of this percentage, said the commission, should be treated, as to such excess, as a tax. *Re Montana-Dakota Utilities Co. Docket Nos. 9308, 9309, October 1, 1956.*



FPC Authorizes Texas Eastern Expansion and Reconsiders Retirement of Little Inch Line

IN consolidated proceedings the Federal Power Commission authorized Texas Eastern Transmission Corporation to expand its sales capacity by approximately 255,000 Mcf per day, and to construct additional facilities. A proposal by the company to import up to 200,000 Mcf of natural gas from Mexico, with necessary new facilities for that purpose, was approved. The commission also authorized Texas Eastern Penn-Jersey Transmission Corporation, a subsidiary of Texas Eastern, to construct facilities at an estimated cost of \$8,000,000 and lease them to the parent company to be operated as an integral part of the latter's system.

"Little Inch" Retirement

Along with these matters, an earlier proceeding by Texas Eastern was reconsidered upon remand from a United States court of appeals (9 PUR3d 389; 13 PUR3d 145). In that case the commission had authorized the company to retire that portion of its Little Inch pipeline extending from Baytown, Texas, to Moundsville, West Virginia, and to construct replacement facilities. The retired pipeline was intended to be used for the transmission of petroleum products, though such use was not directed in the commission's order.

The court set aside this order at the

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instance of the city of Pittsburgh and competing fuel interests on an issue of future expansion needs and on the ground that the commission, which granted the authority on considerations of gas operations alone, should have considered evidence concerning the effect of the conversion on carriers of petroleum products, national antitrust policy, and matters of national defense. As far as gas operations were concerned, the commission reaffirmed its former position but ordered further hearings in accordance with the court's opinion.

Facilities and Financing

Texas Eastern proposed two alternative designs of facilities needed to accomplish the expansion of sales capacity. Assuming the Little Inch is retired from gas service, it proposed "maximum facilities" including 422 miles of 30-inch pipeline running from the Mexican border near McAllen, Texas, to Texas Eastern's Vidor station, 530 miles of 30-inch loop line between Kosciusko, Mississippi, and Uniontown, Pennsylvania, 45 miles of 24-inch line from Provident City to the proposed McAllen to Vidor line, together with supply laterals, sales laterals, and an addition of approximately 72,300 horsepower for compression. The total estimated cost of the maximum facilities was fixed at \$141,008,335.

The company's alternative design, based on the assumption that the Little Inch remains in gas service, proposed "minimum facilities" including the 30-inch McAllen-Vidor line, 77 miles of loop lines on the Kosciusko line, the 24-inch line between Provident City and the proposed McAllen-Vidor line, supply laterals, sales laterals, and 32,200 horsepower for compression. The estimated cost of these minimum facilities was \$74,707,130.

It was proposed to finance the alterna-

tive plans entirely with debt capital. If carried out in full, this financing would increase the debt ratio from 64 to 70 per cent. The commission expressed satisfaction with the financial feasibility of the plans.

Objections to the expansion interposed by a number of coal interests were not found to be substantial. The commission concluded that the proposed increased sales would have a very limited effect upon such interests, and that the public interest involved in the continuation and extension of the natural gas service to existing and new customers far outweighed any limited effect on coal interests.

Importation of Mexican Gas

A contract between Texas Eastern and a corporation created and owned by the Mexican government provided for the sale and delivery by the Mexican company of up to 200,000 Mcf at 14.65 psia of natural gas per day for a period of twenty years. Evidence of proven gas reserves in support of the contract reflected an obligation to deliver 117,303 Mcf per day at 14.73 psia.

Commission counsel recommended that importation be restricted to a volume not exceeding the latter amount. Coal interests opposed the importation on the ground that it might displace coal as a fuel. Opposition by the city of Pittsburgh was based upon the asserted right of the government of Mexico in its sovereign capacity to terminate exportation of gas at any time.

The commission found that importation of Mexican gas was not inconsistent with the public interest, saying that it viewed the importation "as indicative of mutual benefit . . . and as illustrative of the mutual faith, confidence, and respect each has for the other."

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The commission refused to restrict the importation to 117,303 Mcf per day. Its concern was not with an investigation of reserves and present supplies available to support an initial certification of a pipeline, or for the expansion of sales capacity, but with the reasonableness of authorizing importation in accord with the contractual understanding of the parties.

Cost of Service

Under the maximum facilities plan the cost of service was calculated to be about \$185,000,000, while with minimum facilities a somewhat higher figure was indicated. In determining the cost of service a theoretical rate of return of 6 per cent was used for both plans. Final revision of customer demand, however, reflected a rate of return, assuming the Little Inch retired, of 5.58 per cent in 1958 to 5.72 per cent in 1960. If the Little Inch were retained in service, the return would be slightly less.

Opposing parties argued that there could be no valid comparison of costs of service of systems reflecting use of the maximum and minimum facilities, without assuming an identical capital structure if the rate of return used in the comparison was the same. The commission said: "We know of no good reason why an assumed constant rate of return should not be reflected in comparative costs of service; nor do we agree that a comparison of relative advantages of one set of

facilities with another must assume an identical capital structure. Fluctuation in the composite cost of money which may result, assuming a change in capitalization ratio, would represent merely one factor affecting our determination of a proper rate of return."

Texas Eastern allocated to its contemplated petroleum transmission costs part of certain future contract charges for electrical energy used for compression on the Little Inch line, thus diminishing the cost of service under the maximum facilities plan. The commission approved this allocation.

Commission Approval

Proposals of opposing parties to eliminate some of the minimum facilities were found to be unacceptable, as not being founded upon consideration and analysis of "the many operational problems, present, probable, and possible." A certificate was issued authorizing construction and operation of the facilities previously authorized by the commission, less particular lateral lines. Pending the outcome of further hearings on questions of national policy relative to the conversion of the Little Inch line as contemplated under the maximum facilities plan, the commission approved the company's minimum facilities plan of expansion. *Re Texas Eastern Transmission Corp. et al. Opinion No. 296, Docket Nos. G- 2503 et al. October 9, 1956.*



Price Fixed for Stock Offered to Stockholders

THE Connecticut commission approved a subscription price of \$32 per share for \$25 par value common stock being offered to Southern New England Telephone Company's stockholders. This price represented an underpricing of 20

per cent below the prevailing market and a yield greater than 6.25 per cent. The company's proposed price of \$30 per share, which would yield 6.67 per cent and represented a 25 per cent underpricing, was disapproved. Proceeds from the

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sale of the stock would be used to finance the company's construction program.

Past experience indicated that the company's common stock has enjoyed high investor regard and has been readily accepted by investors upon the occasion of new offerings. The commission said that it was fully cognizant of the difficulty attendant on the fixing of a fair offering price for the common stock and of the importance for the company, which is required frequently to enter the market for additional common stock, to fix the offering price so as to assure the success of the issue and to make it as certain as possible that investors will continue to provide the large sums of additional capital which will be needed. It has a corresponding duty and responsibility, however, in the public interest to pass upon the reasonableness of the terms and conditions of security issues.

Rate and Return Factor

The company took the position that the public will not be adversely affected by the sale of the stock whether the offering is priced at more or less than \$30 per share, provided all the money contributed by the stockholders is invested in plant dedicated to the public service, inasmuch as the company is entitled to a return on the total amount of its property

used in providing telephone service.

The commission said that it is true, of course, that in fixing rates it should allow the utility, in addition to the cost of conducting service, including tax and depreciation expenses, a return on the value of its property devoted to the public service. As a practical matter, however, the gross revenues derived from rates fixed by the commission must be sufficient, after all expenses have been met, to provide for the payment of fixed charges on debt and reasonable dividends to stockholders. The major source of income is the money paid for service by subscribers.

The commission said that if the company were permitted to market the stock at a price lower than the minimum needed to attract additional capital, ratepayers might be called upon to pay rates yielding a higher rate of return than otherwise necessary. If the same amount of capital could be obtained from the sale of a smaller number of shares, less money would be needed. The commission stressed this point by noting that for each dollar of net income available for dividends, about \$2 of additional gross revenues must be produced by the ratepayer because of the structure of the federal income tax rate. *Re Southern New England Teleph. Co. Docket No. 9392, October 3, 1956.*



Telephone Company Serving Rural Area with Modern Equipment Deserving of Increase

THE Tennessee commission authorized a telephone company to increase its rates. Considering anticipated growth, the additional revenues would yield a return of less than 6 per cent, which the commission considered reasonable.

The commission pointed out that while it was always reluctant to grant rate increases, it was well aware of the service

being rendered the community by the company. The physical plant was among the finest in the state. Necessarily incident to such a system, said the commission, were rates which would reasonably compensate the company for its investment. From recent experiences with a large number of independent companies in the state, the commission had found that where an effi-

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cient and sufficient telephone service was being rendered a community, the subscribers had been willing to pay the cost of rendering such a service.

The commission recognized that the company was serving principally a rural or marginal area, an area sparsely populated as compared to a congested or densely populated area, and that the cost per station of installation, maintenance, and

cost of rendering service was necessarily greater than that of a telephone system located in a thickly populated city. The rates requested by the company would have been inadequate without the financial program of the Rural Electrification Administration, whereby long-term loans were available at nominal interest rates. *Re Millington Teleph. Co., Inc. Docket No. U-3799, September 26, 1956.*



Unilateral Rate Filings Accepted in Face of Contract Abrogation Claim

ABROGATION of contract rates by unilateral action was the ground asserted by Tyler Gas Service Company and the city of Tyler, Texas, in proceedings before the Federal Power Commission seeking to have the commission reject the unilateral filing of tariff rate increases by United Gas Pipe Line Company, and demanding a refund.

They contended that United, in unilaterally filing a conversion tariff, had attempted to change the rates prescribed in a contract between Tyler Gas and the pipeline company. In support of their argument they cited the Mobile Gas Service Case (12 PUR3d 112), wherein the Supreme Court of the United States held that a natural gas company could not, by unilateral filing, effect a change in a contract rate.

The Federal Power Commission rejected their argument and the asserted applicability of the Mobile Case, distinguishing United's action from that outlawed by the Supreme Court.

The contract rates to Tyler Gas, the commission pointed out, had ceased to exist when the conversion tariff, filed pursuant to a commission order, went into effect without being contested even though the tariff rates departed substantially from the contract rates. Unlike the

departure from the contract rates to Tyler Gas effected by United's conversion tariff, the conversion tariff in the Mobile Case did not change the contract rate to Mobile but merely restated the rate from a percentage figure to a specific amount. This significant difference, said the commission, sets the two cases apart in fact and in law.

Since, under the Mobile conversion tariff, the rate contracted for remained intact, a subsequent unilateral filing attempting to effect a rate change was an abrogation of contract. But with respect to Tyler Gas, as a United States court of appeals held (7 PUR3d 481), tariff rates proposed subsequent to the conversion tariff were not violative of contract rights and were properly filed. Said the commission: "The existence of ex parte tariff rates for the sale of gas to Tyler Gas having been established by the conversion tariff, changes in those rates may be filed ex parte without the prior agreement of the purchaser . . ."

The requested refund, hinging upon the alleged invalidity of the conversion tariff, was denied, as were the petitions to reject the unilateral filings of rate increases, which had been duly offered for filing in accordance with the commission's regulations. It is to be noted, of course,

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that the mere filing of an ex parte tariff rate does not constitute approval of the rate by the commission. *Re United Gas*

Pipe Line Co. Opinion No. 294, Docket Nos. G-1142, G-2210, G-9547, G-10592, October 2, 1956.



Telephone Company Permitted to Discontinue Free Service over One Line

THE Illinois commission authorized a telephone company to discontinue free service over one line between the company's exchange and that of a co-operative after conversion of the exchange to dial operation had been effected and extended area service instituted between certain exchanges. A survey of customers using the company's exchange indicated

little community of interest between them.

The continuance of free service would have necessitated obtaining additional central office equipment and would have resulted in increased operating expenses. Granting of the company's application was considered in the public interest. *Re Illinois Bell Teleph. Co. 43482, September 19, 1956.*



Co-op Not Allowed to Borrow Funds for Lending

FOR want of jurisdiction, the California commission dismissed an application by an electric co-operative for authority to borrow money from the United States for use in making loans to member customers to enable them to purchase appliances and install electrical, plumbing, and irrigation facilities. The government agreed to lend \$50,000, and the co-operative proposed to issue its note for that sum.

Under the state public utilities code, the commission is empowered to authorize the issuance of securities for specific purposes, and for no others. The incurring of debt by a utility in order to obtain loanable funds, the commission observed, is not one of the authorized purposes. *Re Anza Electric Co-operative, Inc. Decision No. 53825, Application No. 38373, October 1, 1956.*



Commission's Refusal to Allow Discontinuance of Passenger Trains Reversed

ON appeal from the commission's denial of a railroad's request for permission to discontinue two passenger trains, the Oklahoma supreme court reversed the commission's order and held that the evidence did not support the finding that there existed a public necessity as distinguished from a public convenience for the continued passenger train service. The court quoted with approval a previous statement that with the modern trend of opinions that passenger trains are oper-

ated primarily for the carriage of passengers, if the public abandons the trains for passenger travel, there is no duty or obligation to continue operation at a substantial loss. In a proceeding to discontinue certain trains, revenue, expenses, and losses shown in the operation of a train have a direct bearing upon whether or not public convenience and necessity require the continued operation of any particular train.

The court was of the opinion that the

PUBLIC UTILITIES FORTNIGHTLY

facts showed without question that the trains are operated at a large deficit and that the people were patronizing buses running parallel with the branch line or using their own passenger cars. The private automobile had practically supplanted

ed the railroad as a means of transportation over short distances, and had rendered obsolete branch line passenger train service such as the one under review. *St. Louis-S.F.R.Co. v. Oklahoma*, 301 P2d 228.



Railroad Passenger Deficits Reduced by Discontinuance of Two Trains

THE California commission granted a railroad's request for permission to discontinue the operation of two trains. The railroad had demonstrated conclusively that, even after the elimination of one train in each direction, there would remain a clear sufficiency of service for those members of the public desirous of using railroad transportation.

The matter of determining which trains should be discontinued is a matter in the first instance for determination by management, pointed out the commission. Then authority to execute such determination must be obtained.

The railroad had sustained its burden of proof and had justified the discontinuance. The commission would not substitute its own discretion for that of rail-

road management, unless the record showed that such action was required to protect the public interest. The slight inconvenience that would be suffered by those patronizing the trains was out of proportion to the public benefit to be achieved by the reduction of the railroad passenger deficit.

The commission was well aware of the seriousness of the continuing passenger deficits and the burden on freight rates which had resulted therefrom. Public interest required that such deficits be reduced whenever it could be done consistent with the needs of the passenger patrons, to avoid any unnecessary burden on the patrons of the freight service. *Re Southern P. Co. Decision No. 53791, Application No. 36995, September 18, 1956.*



Demand Provision of Electric Residential Rate Schedule Modified

THE Ohio commission authorized Ohio Edison Company to modify its residential rate schedule providing for a demand charge for unincorporated areas and incorporated communities having a population of less than 1,000, and in which rates are not fixed by ordinance.

The company's existing schedule provided for a demand charge when the measured demand has been more than five kilowatts for at least two consecutive months and in connection therewith contained a

provision that the billing demand should be the measured demand, during each month, but not less than the highest measured demand for any of the preceding twelve months, and in no case less than five kilowatts.

The commission authorized the company to modify this clause so that it would provide that the billing demand should be the measured demand during each month, but not less than 60 per cent of the highest measured demand for any

PROGRESS OF REGULATION

of the preceding eleven months and in no case less than five kilowatts. The company stated that the 60 per cent ratchet in place of the existing 100 per cent ratchet would

tend to reduce the billing demand. The commission concluded that this would result in a more equitable charge. *Re Ohio Edison Co. No. 21,943, October 15, 1956.*



Error in Authorizing Transfer of Permit as Certificate

THE Florida supreme court overturned a commission order which had erroneously granted the transfer of a permit for hire as a certificate of public convenience and necessity for the operation of motor vehicles as a common carrier for compensation. The commission had refused to consider evidence which would have aided it in determining whether or not the certificate should be altered and had also refused to consider evidence that the transfer would be against public interest and would, in effect, initiate a new service. The court quashed the order.

"For-hire" permits required to operate motor vehicles as common carriers for

compensation, pointed out the court, are granted with little or no formality and are not transferable, whereas certificates are granted and transferred with considerable formality. A permit for hire could not validly be transferred as a certificate even though the holder and transferee of such permit chose to call it a limited common carrier certificate in the petition for approval of the transfer. The passage of time could not supply the power in the commission to recognize and deal with a permit so that it would eventually become a certificate and entitled to the efficacy of one. *Seaboard Air Line R. Co. v. King et al. 89 So2d 246.*



Nonconforming Construction in Residential Area Upheld

A DETERMINATION by the New Jersey commission that it was "reasonably necessary" for a water company to erect a water tank, a nonconforming structure, in a residential zone was upheld by a New Jersey court upon appeal by the city involved. A state statute provides that zoning regulations shall not apply to structures used or to be used by utilities if the commission, after hearing, shall determine that a proposed structure is "reasonably necessary for the service, convenience, or welfare of the public."

There was solid evidence to the effect that the tank was necessary to the furnishing of adequate service in the area. The particular site where the tank was proposed to be erected was claimed by the

company to be ideal for the purpose, while other possible sites in the area appeared to have disadvantages, and all were in residential zones.

The city contended that the commission failed properly to weigh the detriment to the public welfare inherent in allowing the nonconforming use against the benefit to be conferred by the erection of the facility. It was also urged that, in order to establish reasonable necessity, the company was bound to present alternative plans, which it did not do.

The city itself offered no alternative plans.

Noting that its review authority was limited to the question of whether the commission's determination was support-

PUBLIC UTILITIES FORTNIGHTLY

ed by substantial evidence, the court ruled that there was sufficient evidence to support the findings of reasonable necessity. It was observed that the word "necessary," as used in the statute, did not mean absolutely necessary or indispensable. And the word "public" referred to the public served by the utility and not the limited group benefited by the zoning ordinance.

With respect to the second objection

interposed by the city, the court said the company, in proving necessity for the improvement, was bound to show that the means or methods proposed were reasonable or desirable. This was shown to the satisfaction of the commission. But the burden of demonstrating feasible alternative methods or sites devolved upon the protesting party. *Re Hackensack Water Co.* 125 A2d 281.



Showing of Convenience and Necessity Required For Certificate Modification

A TEXAS court of appeals, reversing a trial court, held that the commission was within its authority in imposing upon a bus company the duty of performing specified local operations as a condition to granting a certificate to furnish through service, and in requiring a showing of public convenience and necessity as to the through service alone before a reduction of the local transit operations may be permitted.

Upon application by the company for withdrawal of the local service conditions, the commission found that the restrictions were an integral part of the certificate and refused to modify them. The commission's order was invalidated by the trial court, though no showing had been made of a need for the through operation independent of the local service.

The court of appeals ruled that in so far as the trial court held that the through service was independent of the local operations, and that the through service could be separately retained by the company without a showing of public convenience and necessity for it alone, the trial court had improperly substituted its judgment for that of the commission. The appellate court noted that the original certificate was granted on the basis of a showing of convenience and necessity for both services together, and that the authority was specifically restricted to require both operations. In these circumstances the modification contended for would demand a showing of public convenience and necessity. *Texas R. Commission et al. v. Missouri P. Transp. Co.* 293 SW2d 114.



Procedural Distinction for Relocation of Grade Crossing and Opening New Crossing

THE New York commission held that a village's application for the relocation of two grade crossings by means of discontinuing them and establishing two new crossings at different streets, in order to relieve traffic congestion, should be brought under § 90 of the Railroad Law

even though its concurrent request for authority to close the existing crossings might be effected under § 91 of the Railroad Law. Section 90 applies when a new street is to be constructed across a railroad, whereas § 91 involves relocation of an existing highway.

PROGRESS OF REGULATION

The procedural distinction is not a mere technicality. Two important matters of substance turn on the distinction. The cost of work undertaken pursuant to § 91 of the Railroad Law is borne 50 per cent by the railroad, 25 per cent by the state, and 25 per cent by the village, while the cost of opening a new crossing pursuant to § 90 is borne 50 per cent by the railroad, and 50 per cent by the village. Furthermore, the commission pointed out, if part of the relief which the village seeks is properly brought under § 90, certain procedural requisites, such as notice to the railroad and a public hearing, must be

complied with before the commission may act. Neither of the existing crossings created the conditions of which the village officials complained. The traffic flow problem was one which they believed would be alleviated by the opening of new crossings at different streets. In fact, traffic which would use the new crossings would not be the same as that presently using the existing crossings. Consequently, the commission concluded that it was inappropriate to call the village's plan a relocation of existing crossings within the meaning of § 91. *Re Village of Farmingdale, Case 17825, August 13, 1956.*



Public Convenience and Necessity Not Involved In Certificate Transfer

A TEXAS court of appeals, sustaining a lower court decision, overturned a commission order denying the sale and transfer of a motor carrier certificate on the ground that the transfer would not be best for the public interest. The commission maintained that a showing should have been made as to public convenience and necessity and asserted that the transfer was in effect an attempt, by piecing together existing certificates, to obtain a new through service without proving public convenience and necessity.

The "public interest" with respect to a certificate transfer, the court said, relates to good faith, ability to continue op-

erations, sufficiency of equipment, financial ability, and willingness to abide by the law and the commission's rules. But public convenience and necessity as such are not involved in a sale and transfer under Texas law.

That issue is determined at the time of granting a certificate.

Since there was no evidence to support the commission's finding that the transfer would be contrary to the public interest, it was held to be illegal and void, and the commission was directed to approve the application. *Texas R. Commission v. Jackson (Hub Motor Lines et al.)* 293 SW2d 87.

Other Recent Rulings

Stays Not Justified. The United States court of appeals held that the fact that television channel license holders had opened UHF stations in areas where VHF stations had already been assigned and thus had notice of competition from VHF

stations, as well as the lack of sufficient likelihood of success on the merits of their cases, did not justify stays, in view of a very great public interest in obtaining additional service through grants of additional VHF licenses. *Coastal Bend Tele-*

PUBLIC UTILITIES FORTNIGHTLY

vision Co. v. Federal Communications Commission, 231 F2d 498.

Allocation Postponed. The United States court of appeals held that the allocation, by the Federal Communications Commission, of a certain "drop-in" VHF channel to a predominately UHF area should be postponed pending the outcome of VHF and UHF deintermixture proceedings before the commission, lest irreparable harm on other UHF stations be imposed without a corresponding public interest in the allocation. *Greylock Broadcasting Co. v. United States*, 231 F2d 748.

Suspension of Rates. The United States district court held that discretionary orders of the Interstate Commerce Commission as to suspension of rates could be made pending a hearing on the merits and without the introduction of testimony, since such orders were merely interlocutory steps preceding a hearing and a decision as to the lawfulness of the proposed rate. *Long Island R. Co. v. United States*, 140 F Supp 823.

Tacking of Certificate Paragraphs. The Alabama supreme court held that a certificate authorizing motor carriers to operate on a regular route between specified points, which contained two separate paragraphs describing two irregular service routes, was but a single grant of authority and the paragraphs of the certificate could not be tacked or joined to provide a through service more extensive or different from that provided by the individual paragraphs. *Deaton Truck Line, Inc. v. Birmingham - Tuscaloosa - Mobile Motor Freight Line et al.* 87 So2d 421.

Damages for Telephone Removal. The Kentucky court of appeals held that a tele-

phone subscriber was entitled to nominal damages only where the company had wrongfully removed his instrument but damage to the customer's business by reason of such removal had not been proved. *Citizens Teleph. Co., Inc. v. Anderson*, 291 SW2d 527.

Concessions to Federal Government. The Texas court of civil appeals held that the intrastate carriage or transportation of persons or property for the federal government by a common carrier at fares and rates different from those prescribed by the commission was not prohibited by state statutes construed in the light of existing federal law where the carriage and transportation were for the federal government in the exercise of its constitutional functions. *Texas R. Commission et al. v. United States et al.* 290 SW2d 699.

Commission Change of Order. The Ohio supreme court, in reversing a commission order, held that the commission could not change an order determining track clearance in railroad yards without producing evidence to justify the change and, in the absence of the production of such evidence, the railroad had no obligation to offer evidence against the change. *Akron & Barberton Belt Rd. Co. et al. v. Ohio Pub. Utilities Commission*, 135 NE2d 400.

Electric Extension. The Missouri commission ordered an electric company to extend service to certain customers located within its certificated area, notwithstanding the prospect of a presently low return on its investment and the fact that in doing so its extension rule on file with the commission would be disregarded, without prejudice to any claim or contention the company might make as far as the application of its extension rule in the future.

PROGRESS OF REGULATION

Re Payton et al. Case No. 13,400, July 10, 1956.

Lease of Private Permit. The Colorado commission approved, as compatible with the public interest, the leasing of a private motor carrier permit by an insolvent partnership to a corporation, and the issuing of a promissory note and chattel mortgage plus an assignment of rents due from the corporation to the partnership's creditors. *Re Tri-State Rig Co. Application No. 14391, Decision No. 46143, July 13, 1956.*

Improved Service Given Recognition. The New York commission, in authorizing a railroad to increase fares, held that the company's action in providing improved passenger car service for commuter travel would be given recognition in the determination of just and reasonable fares so that the incentive to improve and better commuter service would be continued. *Re New York, N. H. & H. R. Co. Case 17819, July 17, 1956.*

Agricultural Electric Pumping Rates. The California commission pointed out that it had the duty to see that agricultural electric pumping rates did not burden other classes of customers and result in unreasonable discrimination, notwithstanding that such rates would help promote development of an area. *Re California Oregon Power Co. Decision No. 53659, Application No. 37918, August 29, 1956.*

Duty to Serve. The Maryland commission stated that a municipal water plant's right to supply service beyond the limits of the city at least implied an obligation to provide service to those who might readily be reached by existing mains or ordinary extensions thereof at just and

reasonable rates. *Re County Comrs. of Washington County, Case No. 5437, Order No. 52391, September 6, 1956.*

Local Management Expenses. The Maine commission disallowed a water company's claim for local management expenses as unjustified where the parent company had undertaken to furnish complete managerial, engineering, legal, financial, and accounting service at a fixed rate. *Re Biddeford & Saco Water Co. FC No. 1481, September 24, 1956.*

"Pay as You Leave" Plan. The Missouri commission directed a transit company to investigate its "pay as you leave" plan after receiving a complaint that not only was the plan unpopular with the patrons, but was dangerous in that patrons would crowd the operator of the bus when he was attempting to drive to the curb for the purpose of letting passengers off and on, thereby causing loss of control. *Re Kansas City Pub. Service Co. Case No. 13,509, October 2, 1956.*

Authorization by Exemption. The United States court of appeals held that the Civil Aeronautics Board has power to authorize by exemption the transportation of mail by carriers not certified to transport mail. *American Airlines, Inc. v. Civil Aeronautics Board, 231 F2d 483.*

CAB Error Prejudicial. The United States court of appeals held that the Civil Aeronautics Board's failure to supply an answer to a charge raised by an airport authority that the award of a new route segment to an air carrier discriminated against the locality served by the authority was in fact a substantial error, since it prejudiced the authority in its efforts to obtain judicial review and had been flatly raised and was relevant to the

PUBLIC UTILITIES FORTNIGHTLY

board's ultimate decision as to what public convenience and necessity required. *Greensboro-High Point Airport Authority v. Civil Aeronautics Board*, 231 F2d 517.

FCC Action Not Arbitrary. The United States court of appeals held that the Federal Communications Commission had not acted arbitrarily in affirming an examiner's decision that one of two mutually exclusive applicants for facilities in domestic public land mobile radio service was lacking in requisite character qualifications to become a permittee and was not entitled to comparative consideration and that the other applicant's application should be granted, where the Postmaster General had issued a fraud order against the unsuccessful applicant fifteen months earlier. *Klein v. Federal Communications Commission*, 232 F2d 73.

Spur Track or Extension. The United States court of appeals held that a single railroad track built to service steel company property which had no station, communication lines, or block signals and which was not used for regular train movements but was used only for switching cars onto and out of the company's property was a spur, not an extension, which did not require the issuance of a certificate of public convenience and necessity. *Detroit & T. S. L. R. Co. v. New York C. R. Co.* 233 F2d 168.

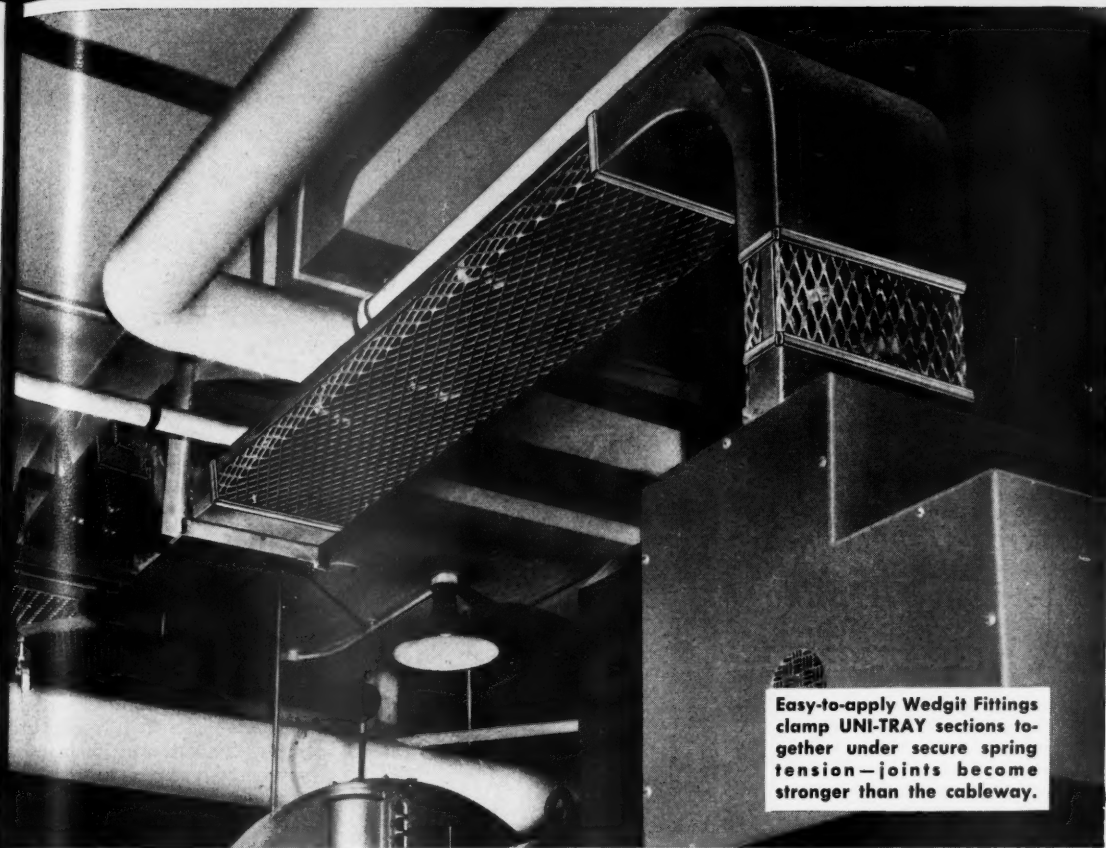
Interest on Freight Overcharges. In an action by a shipper to recover overcharges paid to a motor carrier, a United States court of appeals ruled that interest should be allowed from the time the excess charges were paid, since the right to recover the excess itself arose at the same time. *Fawley Motor Lines, Inc. v. Cavalier Poultry Corp.* 235 F2d 416.

Liability for Shipping Charges. A shipper was not necessarily liable for freight charges, said a United States district court, even though he was the original shipper of raw materials and the consignee on a return shipment of the same materials manufactured into a finished product, where there were neither filed tariffs nor an agreement between carrier and shipper designating which one, the original shipper or the manufacturer, was to pay the charges. *Mazzeo & Sons Express v. William M. Perry, Inc.* 143 F Supp 156.

Discretion in Reopening Case. A United States district court upheld the Interstate Commerce Commission in refusing to reopen a carrier proceeding, saying that such an administrative decision is discretionary and should not be disturbed upon judicial review unless there is a clear showing of an abuse of discretion. *Eck Miller Transfer Co. v. United States et al.* 143 F Supp 409.

Demand for Service. The Pennsylvania superior court held that an applicant for extension of its motor carrier operating territory did not have to establish present demand for service in every square mile of the territory to be certificated and that proof of necessity within the general area was sufficient. *Noerr Motor Freight, Inc. v. Pennsylvania Pub. Utility Commission*, 124 A2d 393.

Railroad Regulation. The Texas court of civil appeals held that commission regulation of a railroad was not restricted to the duty of maintaining the status quo but encompassed the power to intensify as well as the power to relax the manner in which the railroad performed the public duties. *Missouri-K.-T.R. Co. et al. v. Fowler et al.* 290 SW2d 922.



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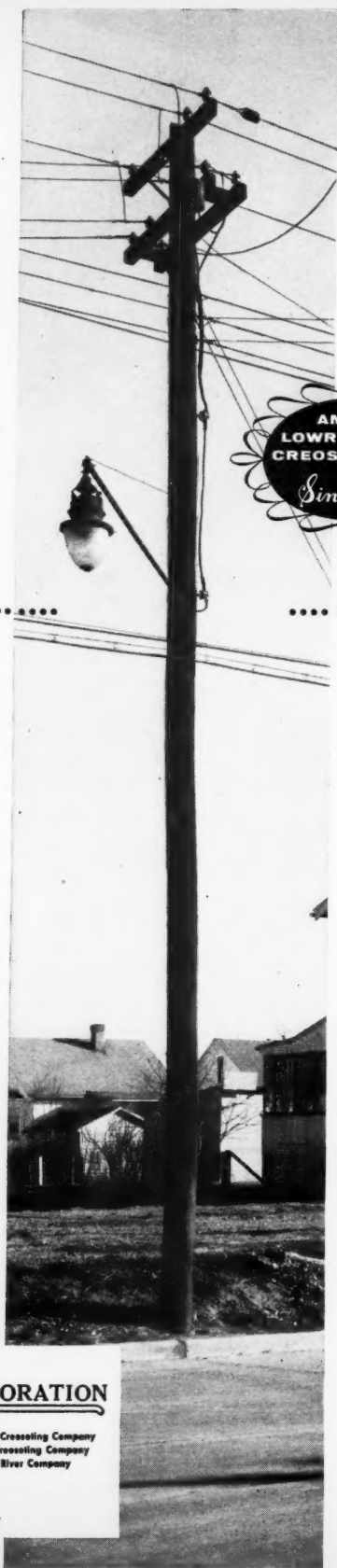


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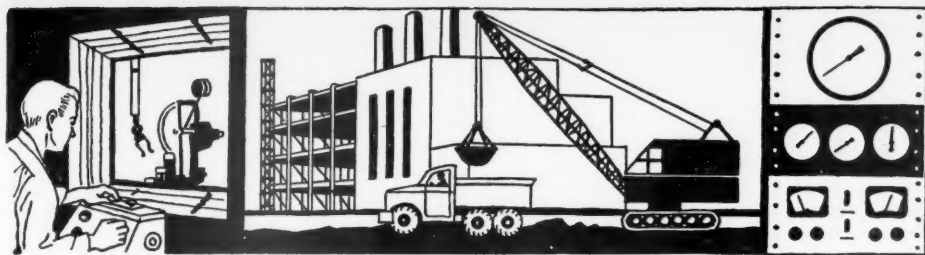
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Industrial Progress

Public Service Elec. & Gas Plans Billion Dollar Program

CAPITAL expenditures of more than billion dollars between now and 1965 indicated for Public Service Electric and Gas Company to meet anticipated growth of the company's electric and gas systems, Lyle McDonald, chairman of the board of the New Jersey utility, told security analysts at a luncheon meeting in New York City recently. The company expects its electric system load will have increased, by 1965, to about 4,000,000 kilowatts, double last year's peak load. Public Service Electric and Gas Company now has under construction 100,000 kilowatts of additional generating capacity. This includes 450,000 kilowatts at a new generating station in Linden, scheduled to be placed in service in 1957, and 550,000 kilowatts at another new generating station in Bergen county, the first unit of which is expected to be completed in 1958 and the second in 1959. In addition, an order has been placed for another new turbine generator, this one 300,000 kilowatt capacity, for use in 1960.

Although he said Public Service does not presently have plans to construct an atomic power plant, Mr. McDonald pointed out that the company has for a number of years contributed funds and assigned engineers to the research work of Atomic Power Development Associates in Detroit. "We are keeping abreast of developments in this field," he said, "and when the time comes and it is indicated at cost of using nuclear fuels will be competitive with conventional fuels we will build such a plant."

The gas business of the company is also been growing rapidly, mainly sales for heating purposes, the board chairman reported. Public Service now has more than 180,000 building heating customers, he said, compared

with 49,000 at the end of 1950, an increase of 270 per cent.

In the last five years, 1951 through 1955, Public Service Electric and Gas Company has spent \$388 million for plant additions and improvements.

Southern Bell Will Spend \$58,000,000 In Georgia In '57

SOUTHERN Bell Telephone Company will spend a record \$58,000,000 in 1957 to expand service in Georgia, C. C. Sloan, vice president and general manager, said. The company this year will spend \$16 million in Georgia and will add 63,000 telephones. "The heavy construction program will probably continue for at least several years to come," Mr. Sloan said.

Utility Subsidiary Purchases Coal Mine

SALE of the Wyodak Coal Mine near Gillette, Wyoming, was announced recently. Purchaser of the mine and all

equipment was Wyodak Resources Development Corp., a subsidiary of Black Hills Power and Light Company.

Wyodak Resources bought the mine under an option agreement assigned to it by Black Hills Power and Light. The option was given to the power company two years ago upon completion of a sales agreement between that company and The Homestake Mining Company. At that time BHP&L purchased two power plants—the Kirk plant near Lead and the Wyodak plant at the coal mine—from Homestake.

Wyodak Resources Development Corp. will operate the mine. Most of its production will go to three coal burning power company plants which furnish electric service to the Black Hills and eastern Wyoming. The Resources Development corporation also secured a lease on the coal fields previously held by the Wyodak Coal Co.

No purchase price was announced. No changes of personnel are anticipated. (Continued on page 26)

Common and Preferred Dividend Notice

October 31, 1956

The Board of Directors of the Company has declared the following quarterly dividends, all payable on December 1, 1956, to stockholders of record at close of business November 9, 1956:

Security	Amount per Share
Preferred Stock, 5.50% First Preferred Series . . .	\$1.37½
Preferred Stock, 5.85% Series	\$0.97½*
Preferred Stock, 5.00% Series	\$1.25
Preferred Stock, 4.75% Convertible Series	\$1.18¾
Preferred Stock, 4.50% Convertible Series	\$1.12½
Common Stock	\$0.35

*Series was issued Oct. 17, 1956; dividends accrued from Oct. 1, 1956.

W. A. G. Jones
Secretary

TEXAS EASTERN  *Transmission Corporation*
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pated, according to J. B. French, president of Wyodak Resources Development Corp. Harold E. Ross, Gillette, recently elected vice president and general manager, will continue in his present capacity as manager of the coal mine.

3rd Annual Midwest Welding Conference

USE of welding in the rapidly growing nuclear reactor field will be highlighted at the 3rd annual Midwest Welding Conference in Chicago on January 30th and 31st.

The conference is sponsored annually by Armour Research Foundation of Illinois Institute of Technology and the Chicago chapter of the American Welding Society.

Three papers on reactor welding applications will be presented at the afternoon session of the first day. They will include:

"High Temperature Brazing," by Peter Patriarca, metallurgist, Oak Ridge National Laboratory; "Welded Fabrication of a Homogeneous Reactor Core and Pressure Vessel," F. V. Daly, welding supervisor, Newport

News Shipbuilding and Drydock Co., and "Welding of Equipment for Nuclear Plants," Norman Block, consulting metallurgist, Foster Wheeler Corp.

A feature of the January 30th morning session will be an address by George Linnert, research welding metallurgist, Armco Steel Corp., and 1956 Adams Lecturer of the American Welding Society. He will present a paper on welding stainless steel, a field in which he has had extensive experience.

The morning session also will include talks by R. C. Singleton, vice president of engineering, Nelson Stud Welding, on "Research and Applications of Stud Welding," and J. E. Dato, assistant manager, welding, Linde Air Products Co., on "Role of Inert Gas Welding in Industry."

Speakers scheduled for the January 31st technical sessions, and titles of their papers, are:

Morning—Jack D. Robinson, assistant factory manager, Bendix Aviation Corp., "Application of Welding for Salvage of Machine Parts"; E. E. Williams, special engineer, Factory Insurance Association, "Fire Safety

for Welding and Cutting Operations," and Arnold P. Lage, supervisor, welding group, Menasco Manufacturing Co., "Pressure Welding."

Afternoon—J. R. Stitt, research and welding engineer, R. C. Mah Co., "Distortion in Welding—Cause, Prevention, and Cure;" Wallace Rudd, vice president, New Rochelle Tool Corp., "High Frequency Resistance Welding," and O. H. Kuhl, welding engineer, General American Transportation Corp., "Fabrication of Welding of Aluminum Structures."

The meeting will be held in the Illinois Tech Chemistry Building, 3255 S. Dearborn St.

Information concerning the conference can be had by writing to Harry Schwartzbart, supervisor of welding research, Armour Research Foundation, 10 W. 35th St., Chicago 16,

Gas Appliance Sales To Total 300 Million Units Between 1956 and 1975, A.G.A. Says

SALES of gas appliances between 1956 and 1975 will reach an "almost unbelievable" total of 300 million units, three times the total number of gas appliances currently in use, the American Gas Association's Bureau of Statistics predicts on the basis of a new long-range study of the industry's rapidly-expanding potential.

Pointing to the continuous development of new suburban areas served by natural gas and the possibility of higher living standards and greater leisure time may, by 1975, make a two-home family as common as a two-car family of today, the A.G.A. survey indicates that sale of gas ranges alone may rise to 94 million units. This is some four million units more than the total number of gas appliances of all kinds now in use.

The vast potential predicted by the survey is placed at 80 million gas water heaters, 25 million gas central heating units, 20 million gas floor and wall furnaces, 54 million gas space heaters, 17 million gas clothes dryers and 1 million gas incinerators.

Looking even beyond the use of gas appliances which now are in everyday use, the survey discusses the prospect of using the gas-fired heat pump for residential heating. An efficient method of heat storage will make it possible, the A.G.A. report says, for excess heat generated to be recovered and coordinated with a water heating system as well.

(Continued on page 27)



A line crew of the Bell Telephone Co. of Nevada is shown here making emergency line repairs in the High Sierras. Their Model 423 Sno-Cat enables repairmen to keep lines open in any kind of snow.

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INDUSTRIAL PROGRESS—(Continued)

The crystal ball also reveals that basic heat-utilizing functions may be organized on a completely different basis in the home of the future. "Unification of utilities may be achieved through a system that can supply all at requirements from a single heat source," it is predicted. "From a central gas fired boiler type arrangement, controlled by a series of thermostats and valves, a super-heated liquid may run through the house.

"It would run through pipes in baseboards and floors to provide radiant heating, around a storage tank heated water, through coils of tubing in a counter top to cook foods, through tubes in and around cupboards built into the walls to act as stoves, dryers, and incinerators."

Supplementing an earlier survey covering market potentials through 1959, the Bureau of Statistics made new estimates for the 1960-1975 period. Gas range sales for that 15-year period are predicted at 77 million, with estimated two-thirds being purchased by present gas range owners for replacements.

Gas water heater sales in the 1960-

75 period are projected at 64 million units, installation in new homes accounting for almost a quarter of that total.

Nearly 20 million new central heating units may be sold in the 15-year period and "the development and popularization of gas central air-conditioning for all-year climate control can help retain public preference for gas heating." Discussing prospective conversions from other types of heating fuels, the survey foresees the greatest early activity in the most recent natural gas areas—New England, the New York-New Jersey Metropolitan area, and the Pacific Northwest.

Sales of gas floor and wall furnaces are expected to reach 17.5 million between 1960 and 1975, with nearly half the total predicted for the new housing market. A substantial share is also expected to be required by existing homes which will require additional heating because of enlargements to meet the needs of growing families. Similar reasons are seen as the basis for predicting the sale of 42 million space heaters in the 15-year period.

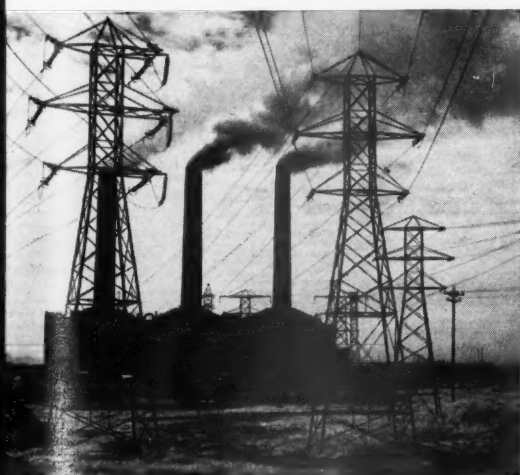
A seven-fold growth in the market for gas incinerators and clothes dryers is anticipated between 1960 and 1975. The potential for these comparatively new gas appliances is predicted at nearly five million incinerators and 15 million dryers.

Southern Counties Gas Marks Growth Milestone

FOR the fourth time in its 45-year corporate history—and the fourth time in less than three years—Southern Counties Gas Company has marked connection of a 100,000th customer in one of its eight operating divisions.

The growth milestone was marked October 25th by the California utility's Eastern Division, when more than 200 civic dignitaries from 13 incorporated communities served by the division attended an open house at "The Lamplighter" model home in West Covina. The home is equipped with an all-gas kitchen.

Over-all, Southern Counties currently serves more than 574,000 customers. (Continued on page 28)



American Appraisals of reproduction cost may affect rates

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INDUSTRIAL PROGRESS—(Continued)

tomers. Other of its eight operating units which now serve more than 100,000 customers are Santa Monica Bay, San Gabriel Valley, and Orange County divisions.

The company Eastern Division's growth is indicative of why Southern Counties currently is one of the fastest expanding utilities in the country. Since 1940 number of customers gained into the division has climbed 274 per cent, while in the six years since 1950 customer additions have been at a 109 per cent rate.

Plant investment in the division has nearly tripled since 1940, from \$7,000,000 to a current \$20,000,000.

Missouri Public Service Plans Large Gas Department Expansion

CONSTRUCTION plans for 1957 for the Gas Department of the Missouri Public Service Company call for expenditure of about \$1,323,866. Of this sum, \$250,000 will be spent for constructing new distribution systems in twelve towns located in North Central Missouri, \$440,800 in two town in another part of its service area, and \$633,066 to expand its present systems

in thirteen towns which it presently serves with natural gas.

Personalities Behind the New Transoceanic Telephone Cable

WITHOUT the efforts of thousands of Bell System employees and British and Canadian telephone people there would be no transatlantic telephone cable. Singling out individuals can be only symbolic, but eight men typify Bell System contributions. Five are midwesterners, two Southerners, and one is from New England.

Two of the eight are Bell Laboratories men—Dr. Oliver E. Buckley, a native of Sloan, Iowa, and Dr. Merwin J. Kelly, of Princeton, Mo. Dr. Buckley headed the small group that first began submarine telephone cable studies as far back as 1919. After spearheading many developments in this, as in other communications fields, he became president of Bell Laboratories and retired in 1952 from board chairmanship of the Laboratories. Succeeding him at the helm of that Bell System unit was Dr. Kelly, who has led the project's design phase to its successful conclusion, in addition

to directing all other Bell Lab efforts.

Six members of A. T. & T. have been close to the cable for many years. George L. Best, Vice President Administration, is a native of St. Albans, Vermont. He took a leading part in the intricate negotiations with British and Canadian telephone people that led to the vast, cooperative project.

The five other A. T. & T. men of the Long Lines Department, He T. Killingsworth, Vice President in charge of the Department, and a native of Fort Gaines, Georgia, has only guided all other phases of long distance communications, but has the responsibility for construction of the transatlantic cable—and, starting today, its operation.

Southern roots also apply to William G. Thompson, Assistant Vice President in the Long Lines Department. Born in New York City of a family that included a governor of South Carolina, Mr. Thompson coordinated many complex parts of the cable project, especially at the government level. Also, he is president of the Eastern Telephone and Telegraph Company, an A. T. & T. subsidiary responsible for the Canadian section of the cable.

Directing the construction phase of the cable system, and now its maintenance and operation, are among the duties of Ralph L. Helmreich, the department's Director of Operations. He was born in Kansas City, Kan.

Also active in the construction project was Charles C. Duncan, of Oakland, Missouri. Mr. Duncan was general manager of the group overseeing the cable installation, and now is Assistant Director of Operations. Assisting on the cable project was John Stirling Jack of Cleveland, Ohio, who directed the cable-laying itself, and was aboard the cables ship during transatlantic operations.

Cable-Radio Relay Route

THE new undersea telephone cable like a porpoise in one respect—it leaps from water to air. Length of the line is 575 miles, from Portland, Maine to Sydney Mines, Nova Scotia. Portland, the transoceanic system linked to established domestic circuits which carry voices to the New York City area, and then to any part of the nation. From Sydney Mines, transoceanic circuits are carried in shallow water submarine cable to Clarenville, Newfoundland, and from

(Continued on page 29)

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More Testing Reactors Needed Says Sylvania Nuclear Authority

MORE reactors to test materials for atomic energy applications are urgently needed, if the United States is to maintain its nuclear leadership, according to Stanley B. Roboff, manager of industrial coordination, Atomic Energy Division, Sylvania Electric Products Inc. He spoke before the recent Atomic Industrial Forum's annual conference in Chicago, Illinois.

There is but one major test reactor operating in the country today which can provide the kind of data required to solve major materials problems, Mr. Roboff said, and that is the U.S. Atomic Energy Commission's materials testing reactor which is being principally devoted to high-priority military work.

The future of nuclear reactor technology "is riding primarily on the solution" of materials problems in nuclear fuels, control elements, and other components, Mr. Roboff said.

(Continued on page 30)

inevitable, as we now see it, that nuclear fuel will predominate. If we are to work into any such atomic program, it is high time that a full-scale commercial start be made."

New England, he continued, distant from coal mines and oil wells, is probably the place where atomic power will first become competitive.

For this reason, he explained, the Yankee Atomic Electric Company was incorporated in 1954 by 12 New England utilities supplying nearly 90 per cent of the electrical needs of the New England area. The entire cost of the Yankee plant, which will be located at Rowe on the Deerfield river just south of the state line between Massachusetts and Vermont, is estimated at \$35,000,000 and will be privately financed by Yankee, with the United States Atomic Energy Commission underwriting up to \$5,000,000 of research and development.

Mr. Webster reported the Yankee project now has passed the preliminary stage and is moving forward at an accelerated pace. Construction will begin next year with the completed plant scheduled for operation in 1960.

to Scotland by deep-sea cable. The Portland-Sydney Mines hop is 19 radio relay towers, spaced an average of 30 miles apart. Securing right-of-ways for the tower installations, then constructing the facilities, is a task of several years. It was done simultaneously with work on the deep-sea portion of the transoceanic system.

Radio relay which first spanned the continent five years ago, is an electronic "pony-express" method of communications used widely by the Bell system. Signals are beamed by high frequency radio waves from tower to tower over line-of-sight routes throughout the United States.

Coincidentally—one of the transatlantic system's radio relay towers is at Boisdale, Nova Scotia, only 13 miles from the summer home of the telephone's inventor, Alexander Graham Bell.

Electric Power Demand To Rise By 100 Per Cent in Next 50 Years

WILLIAM Webster, executive vice president of New England Electric System, recently predicted that the American people in the year 2006 will be using 20 times the electric power they are now using.

In a talk delivered before the Illuminating Engineering Society's 50th anniversary national technical conference in Boston, Mr. Webster estimated that more than 11,000 billion kilowatt-hours of electricity would have to be produced 50 years from now—in 2006—to meet the nation's requirements. In making this prediction, Mr. Webster said: "My concern is that we may have been victims of the prevailing inhibitions and consequently failed to have sufficient faith that the next generation will maintain the rate of progress that this generation has established."

Mr. Webster, who is also president of Yankee Atomic Electric Company, New England's pioneer company in the nuclear field, pointed out that he exercised considerable restraint in arriving at the 11,000 billion kilowatt-hour figure. He said that straight projection of the nine per cent rate of growth of the last 20 years would have resulted in a figure four times this large for the year 2006, or some 80 times the present.

Mr. Webster said the generation of electric power from the nuclear plants is going to be increasingly important as the years go on. "In fact," he continued, "by the year 2006 it is



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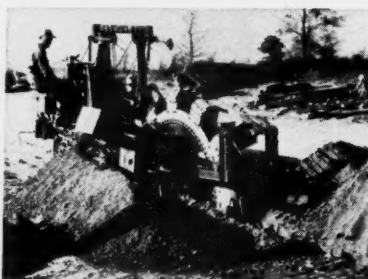
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INDUSTRIAL PROGRESS (Continued)

Materials for use in reactors for electric power production have to be tested under extreme conditions of radiation before the reactors can be developed, he said.

Properties of nuclear materials may change to such an extent after a period of irradiation that the materials are no longer suitable for intended use, or they may have lost a great deal of their initial qualities, Roboff said. The function of a materials testing reactor is to determine how materials will behave under appropriate radiation before they are committed to a specific reactor design and application.

Mr. Roboff recalled that the Atomic Energy Commission gave high priority to the construction of materials testing reactor ten years ago. "In it, the AEC has carried out crucial tests on materials used for highly successful Naval program, nuclear aircraft program, our Argonne package power program and for many commercial reactors currently being developed or built."

"If the materials testing reactor had not been available these past years, our knowledge of the properties of reactor materials would be slow indeed, and progress in reactor development would have proceeded at a snail's pace," Mr. Roboff emphasized.

Mr. Roboff called on both industry and the A.E.C. to do everything possible to build a number of new materials testing reactors. Unless these are built at the earliest possible date, he said, "we will not have the manpower available in this country to maintain our steady pace of progress in the nuclear field."

Four New IBM Products Speed Automation Trend

FOUR revolutionary new products to accelerate the trend toward office and plant automation were announced recently by International Business Machines Corp.:

—**RAMAC** and **RAM650**, the first electronic data processing machines using IBM's random access or "juke box" memory, a stack of disks that stores millions of facts in figures less than a second from management's reach.

—**Automatic Production Recorder**, a new equipment, or APR, the first machine system for automatically extracting vital data from assembly lines and processing it in a form suitable for quick management action.

—**The first electronic typewriter**

tors for e IBM electric typewriter which have to "reads" business forms and does all conditions tabulation setting for the typist etors can electronically.

In announcing the products, Thom-J. Watson, Jr., IBM president said: "These products provide the most significant advancement toward business control and operation by electronics to be made thus far." He went on to say that continuous accounting will mean that business transactions will be completely processed right after they occur. There will be no delays while data is grouped for batch processing. RAM equipment will not only revolutionize punched card accounting but also have high magnetic tape accounting. Automatic production recording, he noted, will provide the much-needed link between the production floor and the data processing department. APR closes an important segment of the "loop" needed for full automation. Mr. Watson added that the new electronic tabulation on the IBM electric typewriter will be a tremendous time and work saving device to every typist who works with these prepared business forms and documents.

The RAM 650 and RAMAC both utilize the magnetic disk memory device announced as experimental by IBM a year ago. Both machines are the first in a planned line of equipment designed for high-volume, in-line processing of business data. Transactions are processed continuously, as they occur, instead of being held until a group is accumulated, sorted, and manually processed. In a single step, all records affected by a transaction will be immediately adjusted to account for the change.

RAM 650 combines the IBM 650 Magnetic Drum Data Processing Machine with a series of disk memory units which are capable of storing a total of 24-million digits. RAMAC is an entirely new machine which contains its own input and output devices and processing unit as well as a built-in 5-million-digit disk memory. Both machines operate according to a program of electronically stored instructions.

An advanced feature of the new continuous accounting machines is the method by which the memory may be interrogated. With the RAM 650, typewriter operators at remote inquiry stations may "ask" the machine for any of the data in the vast memory. Moments later the answer—perhaps a sales total or an inventory figure—appears on the typewriter. The same

remote machines may be used to introduce information directly to the memory. The RAMAC may be interrogated in a similar manner directly from the machine's console.

Automatic Production Recording, according to Mr. Watson, fills a vital need. Thousands of hours are now being spent in plants and factories on data collection and recording. Much of this information is poorly or incorrectly recorded, and a substantial amount finds its way into accounting systems. Management has been aware that a great deal of these data are unreliable, as well as expensive and difficult to collect, and thoroughly inadequate for the purpose of sound management decisions.

With APR, production variables such as weight, count, length, and temperature, together with the related information that identifies the product and the process are automatically collected in printed and punched form. This information can be fed directly to data processing machines capable of preparing production, cost inventory, and other management reports. Management will have available a running picture of current production performance for on-the-spot supervision.

An electronic "reading" device has been added to the IBM electric typewriter so that typists will no longer have to set tabulating stops while filling in the hundreds of different varieties of forms that are used every day in a business office. Business forms will be printed with vertical lines of electrically-conductive ink associated with each blank fill-in area for which the typist would normally set the tab. These lines, in effect, program the typewriter. No matter what variety of form the typist rolls into the machine, the tabs will be automatically set. All the typist need do is operate the tab key, and the machine, "reading" the lines on the form, will position the carriage before the next fill-in area.

Compact FM Utility Radio Receiver For 2-Way VHF Systems

A NEW communications receiver, the Volunteer, designed for monitoring utility, police and fire department, government and industrial radio frequencies, has been announced by Industrial Radio Corp. of Chicago.

The small set (4" x 6" x 8") uses the latest type miniature tubes, transistors (in auto sets) and an improved dual conversion superheterodyne circuit

which employs a crystal for tuning stability (no drift).

A squelch circuit silences the receiver between calls. Because the set is designed for single channel use, the only adjustments are for volume and squelch setting.

The AC models employ 15 tubes, have built-in loud speakers and power supplies. Mobile models are available for 6 or 12 volt electrical systems and use power transistors in the output to reduce battery drain to a minimum. The antenna terminal is designed to accommodate the ordinary car radio antenna.

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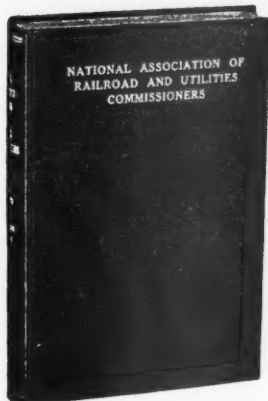
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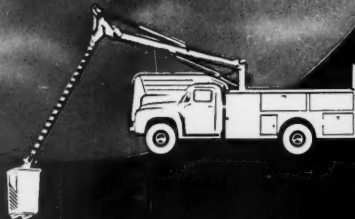
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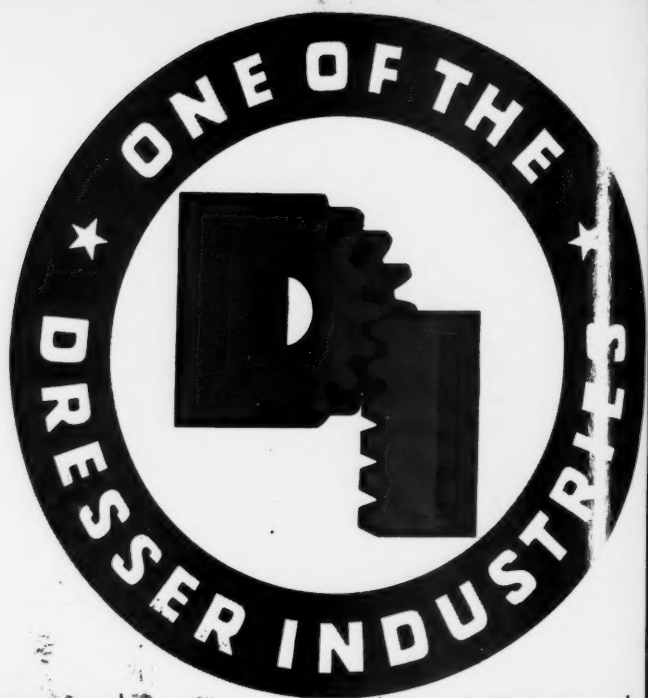
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